

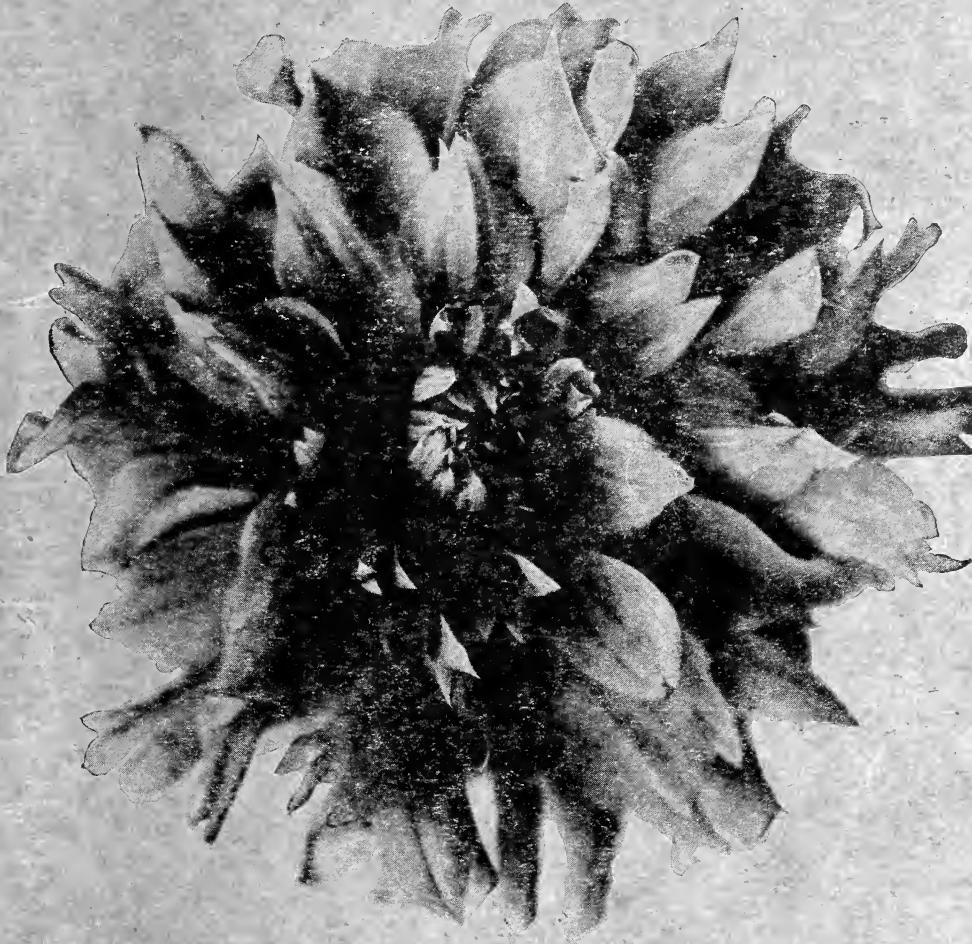
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1926 *LONG'S* 1926

*Garden Book* and "Garden Secrets"



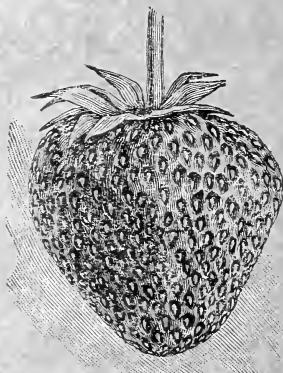
The New Dahlia, "J. D. Long"—See Page 34

*THE J.D. LONG SEED COMPANY*  
Boulder • Colorado

*LONG'S*

## Everbearing Strawberry Plants

Just  
Think!  
Fresh  
Berries  
All  
Summer  
and Fall  
from  
Your  
Own  
Garden



In some localities and under certain conditions, the old June bearing strawberries are still desirable and profitable. But so many of my customers have found the Everbearing kinds so much more dependable and satisfactory that I handle Everbearing plants only.

Several big things are in favor of the Everbearing. One is that you don't need to worry about losing your spring crop from frosts. If the first blossoms freeze, others come on soon and you simply begin picking a little later. Also, you get a dandy crop of berries the very first season, instead of waiting until the second year—and then maybe losing the crop from frosts. Added to this is the fact that you have a continuous crop all summer until late in the fall. Sounds too good to be true.

### Why Long's Plants Are Best In the "Long" Run

In the first place you want plants true to name.

Then you want, also, plants from a healthy patch or field. This is exceedingly important and needs no further comment.

Your plants must be young plants, if you are to succeed. By young plants is meant plants set from runners last season. Any older plants are fit only for the dump. Old plants have dark or black roots. Young plants have light or nearly white roots. A plant may be quite small, yet if young, or new, will deliver the goods.

That's not all yet—not by any means. Plants should be freshly dug when packed and shipped to you. Too many nurseries and seed firms

**Plant Early!** Many make a mistake by ordering late. These plants are outdoors all winter and stand early planting, and do best if planted early. April is the best month in most sections. In normal seasons early April is best, even the last of March is none too early some seasons. Time of planting varies, of course, according to your altitude and other local conditions. I stop shipping plants about May 20th. Order a while in advance. Give us time. I do not promise to ship orders any certain day, or "by return mail," but can sometimes give such "sudden service."

### Giant Everbearing Pride of Denver

Pride of Denver not only bears well the first season, but outdoes other everbearing varieties the second season.

And the berries are large the second season as well as the first, usually bringing 50c a crate more than other everbearing varieties.

**Prices:** 28 (smallest order packed), \$1.00; 100 for \$2.50; 200 for \$4.70; 300 for \$6.60; 500 for \$9.90; prepaid.

### Improved Progressive

**Prices:** 40 plants (smallest quantity we pack), \$1.00; 100 for \$2.00; 200 for \$3.80; 300 for 5.00; 500 for \$8.00; 1,000 for \$15.00; prepaid.

### Why Long's Plants Are Best In the "Long" Run

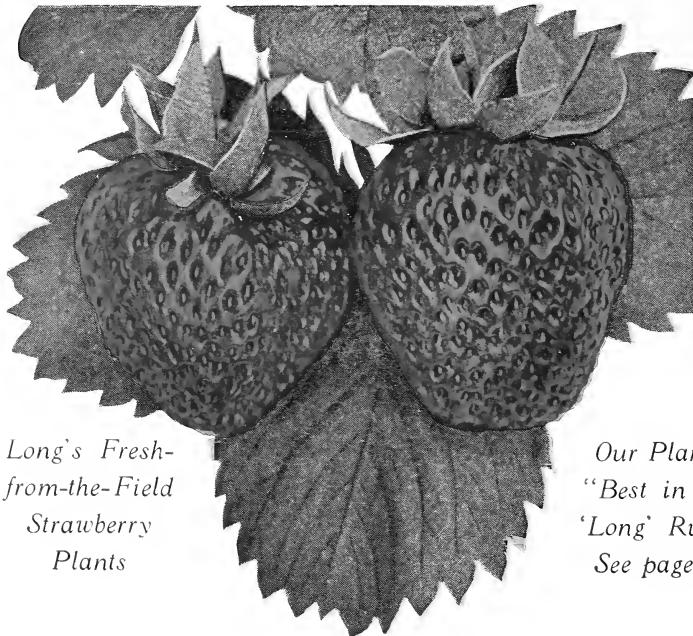
buy large lots at wholesale, have them shipped in, keep them stored for weeks, before finally being packed for delivery to the customer.

I grow my own plants. They are dug as required for filling orders. The roots are not exposed to the air any more than necessary in bringing them to the packing room.

Last, but not least, is careful packing to insure delivery of the plants in good live condition. That's why our customers succeed. For all these reasons Long's plants are "Best in the Long Run."

**NOTE**—We dig and sell strawberry plants in spring only. Absolutely no orders filled in summer or fall. I plant all mine in the spring.





*Long's Fresh-  
from-the-Field  
Strawberry  
Plants*

*Our Plants  
"Best in the  
'Long' Run."  
See page 2.*

## **Giant Everbearing "Pride of Denver" Strawberries**

THE plants are remarkably vigorous, making rapid growth early the first season. Foliage strong and healthy. Stems stout, bearing clusters of large berries of excellent flavor. Ripe berries from July to October the first year.

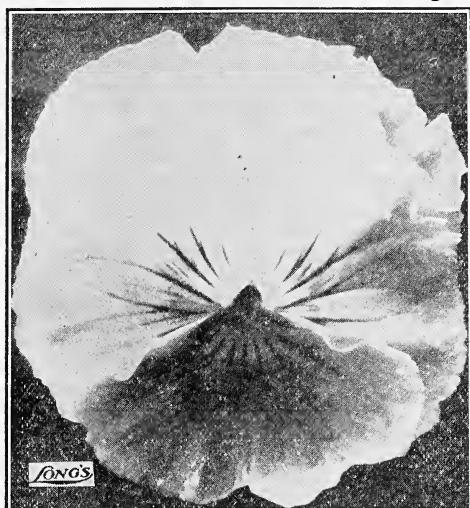
Unlike most other everbearing varieties, especially the well-known Progressive, the Pride of Denver berries are large and fine the second season as well as the first. They produce a heavy crop the second year, in season with the June bearing varieties, and rival the latter in size and quality.

On account of their size and appearance, usually the Pride of Denver berries bring 50 cents a crate more than the Progressive and some other everbearing varieties.

Our plants are grown in Mr. Long's own gardens, wintered out doors with no protection. They are taken up as needed, delivered fresh, and are practically sure to grow.

28 plants (smallest order packed), \$1.00; 100 for \$2.50; 200 for \$4.70; 300 for \$6.60; 400 for \$8.20; 500 for \$9.90; 1000 for \$18.00, prepaid. Safe delivery guaranteed.

**THE J. D. LONG SEED CO.**  
BOULDER, COLORADO

**LONG'S Super-Giant Pansies****LONG'S Super-Giants, Mixed Colors**

Pl. Flowers of gigantic size, some light, some medium in color, and some deep velvety colors that you may never have believed could be had in pansies. Many blossoms are frilled and ruffled like a Spencer sweet pea.

**100 Pansy Plants for \$2.00, Prepaid**

Hardened outdoor plants from Super-Giant seed, sown last fall. The plants are wintered right out in the open, some slightly covered, some not covered at all.

Unlike most florists, I aim to hold the tops back and develop a lot of strong fibrous roots for each plant. This is just the reverse from usual practice of forcing the tops by growing the plants in heavily manured ground and forcing them into bloom under glass.

My ideal plant for setting out is one with strong roots and small tops. If tops are too large I may prune them back. This kind of plant stands shipping fine, and will make good in your garden. I seldom transplant the large plants, but use the smaller ones described above.

I can ship these pansy plants almost any time after ground is thawed out in March. Early in April is a good time. Have made several sowings so as to have them coming on all spring until June. The latest plants went into winter quarters with only several tiny leaves, while the earlier ones were good husky plants, some in bud, others in bloom. Please understand that I do not promise any of these to be in bud or in bloom, though some in each order often are. It just depends on the season and how fast the orders come in. It's better to set out a small plant early than a large one late. The small early set plants bloom very soon.

In *LONG'S* Super-Giants are found the solid colors; others veined, margined, blotched, shaded, blended. Havana brown, mahogany, bronze and copper shades of the Masterpiece and Bugnot; the Giant Carnot and Giant McKinley—these favorites and many others are included in this, my finest mixture. Packet (200 seeds), 25c; 5 pkts., \$1.00;  $\frac{1}{4}$  oz. \$2.50.

**Some Other Fine Pansies**

(Seeds only. No plants.)

**P2. LARGE FLOWERING.** Mixed. Pkt., 10c;  $\frac{1}{4}$  oz., \$1.00.

**P3. DARK NAVY BLUE.** Pkt., 10c.

**P4. JET BLACK.** Of large size. Pkt., 10c.

**P5. WHITE.** Large. Pkt., 10c.

**P6. GOLDEN YELLOW.** Large. Pkt., 10c.

**P7. MAD. PERRET.** Lovely shades of pink and rose. Pkt., 15c.

**P28. GIANT MASTERPIECE.** (Spencer Pansies.) Many petals curled; flowers appear double; mostly dark, velvety shades. Mixed. Pkt., 15c.

**P9. GIANT BUGNOT.** Shades of red, bronze, and reddish cardinal. Mixed. Pkt., 15c.

**P10. GIANT PRESIDENT CARNOT.** White ground with five rich violet blotches. Pkt., 15c.

**P11. GIANT PRESIDENT MCKINLEY.** Rich glowing yellow, each petal blotched with deep reddish brown. Pkt., 15c.

**P12. GIANT BRONZE.** Bronze and brown shades predominate, but many do not come bronze. Pkt., 15c.

**100 Pansy Plants for \$2.00, Prepaid**

Don't be afraid to set these plants out early. They are used to snow and ice. Get the full season's joy from your pansy bed. Sold in mixed colors only. 14 (smallest order packed) 50c; 40 for \$1.00; 100 for \$2.00, prepaid.

**Pansy Plants in Bloom**

14 for \$1.00; 40 for \$2.00.

If you insist, I'll sell you larger plants in bloom, but I don't recommend them for shipping, and they seldom do as well after set out as the smaller size.

It's far better to buy the transplanting size a little earlier. You'll have blooming plants in a short time. Can be set out again, after bloom, if you wish. If wanted in bloom for Decoration Day, set the transplanting size out in April or early May. Then transplant last of May.

Price for pansy plants in bloom, mixed colors only, 14 for \$1.00; 40 for \$2.00; 100 for \$4.00, prepaid.

# *SONGS* Famous Spencer Sweet Peas

## “Early Bird” Spencers

Real Spencer sweet peas, of large size, beautifully waved, that begin blooming nearly a month earlier than other Spencers, or the common kinds. Under favorable conditions, and if kept closely picked, they continue to bloom all summer.

These new “Early Bird” Spencers are the kind the florists grow in greenhouses, but they do splendidly in the open garden also. Order some “Early Birds” along with your usual sweet pea favorites and try them out. They’ll ‘prise you some morning by showing color much sooner than you have been used to looking for first sweet pea blossoms.

Here’s a selected list of extra fine “Early Bird” varieties.

- SP80. AMETHYST. Royal purple.
- SP82. AVIATOR. Dazzling crimson-scarlet.
- SP83. GLITTERS. Orange-scarlet.
- SP84. LAVENDER KING. Clear lavender.
- SP86.—ROSE QUEEN. Soft rose-pink.
- SP88. SNOWSTORM. Pure snow-white.
- SP90. “EARLY BIRD” Spencers. Mixed.

Price for any above color, or mixed, pkt., 10c; 5 or more pkts. at 9c each;  $\frac{1}{2}$  oz., 30c; oz., 55c.

## *SONGS* “33-in-1” Spencer Mixture

SP41. In this mixture you get the best of up-to-date Spencers. I use 33 different named varieties. Of course you might not get all 33 kinds in a 10-cent packet—possibly not in an ounce—but they are all in this mixture. It is my ambition to make this the finest Spencer mixture offered this season. Pkt., 10c; oz., 30c; 2 oz., 50c;  $\frac{1}{4}$  lb., 90c; lb., \$3.00.

## Grandiflora Sweet Peas

SP55. These are the Sweet Peas universally grown until recent years. They are fine, but Spencers are still better. Mixed colors. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 30c; lb., 90c.

## “Lovely ‘Leven” Spencers

### ‘Leven 10c Pkts., 75c

The “Lovely ‘Leven” assortment I offered last season for the third time was such a “howling success” that I’m going to repeat the offer this season.

From over 25 of my splendid named varieties of giant Spencers, I’m going to select eleven that will cover practically all the main colors, tints and shades, giving you a regular 10-cent packet of each these “Lovely ‘Leven.” Then just for good measure, I’ll throw in a 10-cent packet of my “33-in-1” mixed Spencers, and make the price only 75c cents for all.

Please note carefully that to get this special price you must take the assortment as it is put up. You cannot specify certain varieties at this price. These assortments will be put up in advance—a lot of them—ready to send out without any further attention. Just say, “Lovely ‘Leven” for 75c, and you will get our own assortment, which will indeed be lovely.

Larger Lot “LOVELY ‘LEVEN.” For \$1.50 I will send you a half ounce each of these Spencers, my selection, with half an ounce “33-in-1” mixed Spencers thrown in for luck.

## *SONGS* Special Mixture

SP43. My mixture that has given such splendid satisfaction for a moderate price. It includes the best of the grandiflora varieties, a “right smart” of Spencers, and a sprinkling of extra early kinds, the latter coming so early that they spring a delightful surprise on you before you are looking for first blossoms. Pkt., 10c; oz., 15c; 2 oz., 25c;  $\frac{1}{4}$  lb., 40c; lb., \$1.35.

SP39. CUPID SWEET PEAS. Mixed. Pkt., 5c; oz., 20c.

## Perennial Peas

Hard to germinate, but once started live for years.

SP59 Red. SP60 White. SP61 Pink. SP62 Mixed. Your choice, pkt. 15c.

Many Spencers Included In *SONGS* Special Mixture

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## Giant Spencer Sweet Peas



Select varieties, in a wide range of colors, tints and shades. Edges of blossoms usually waved or frilled, giving an added charm to this popular flower.

Three Pkts., 25c; 4 or more at 8c Each.  
Half Ounce at Ounce Rate

**SPO: AUSTIN FREDERICK.** Many sweet pea fans consider this the best lavender to date. Extra large and fine. Pkt., 10c; oz., 40c.

**SP1. BARBARA.** Superb salmon. Pkt., 10c; oz., 35c.

**SP2. BLANCHE FERRY.** Pink and White Spencer. Pkt., 10c; oz., 30c.

**SP3. BUTTERCUP.** Best cream or primrose. Pkt., 10c; oz., 30c.

**SP5. CONSTANCE HINTON.** Finest exhibition White Spencer. Great prize winner. Slightly tinted pink upon opening, but turns pure white. Black seeded, standing earlier planting than other whites. Pkt., 10c; oz., 40c.

**SP6. COUNTESS SPENCER.** The original Spencer. Clear pink. Pkt., 10c; oz., 30c.

**SP7. DAINTY.** White with picotee edges. "Dainty is right." Pkt., 10c; oz., 30c.

**SP8. EDWARD COWDY.** Glowing orange-scarlet. Pkt., 10c; oz., 40c.

**SP9. ELFREIDA PIERSON.** Large and lovely shell pink, tinted salmon. Pkt., 10c; oz., 30c.

**SP11. HAWLMARK PINK.** Rich, bright, rose-pink, flushed salmon. The richest colored sweet pea. Pkt., 10c; oz., 40c.

**SP12. HERCULES.** Mammoth rosy pink. Improved Countess. Pkt., 10c; oz., 40c.

**SP14. KING EDWARD.** The finest pure red Spencer. Does not burn in sun. Pkt., 10c; oz., 30c.

**SP10. DEFIANCE.** (New). Very large orange-scarlet, absolutely sunproof. Often 4 large wavy blooms on stem. Pkt., 15c; oz., 80c.

**SP15. MRS. HITCHCOCK.** Pale pink, flushed salmon on cream ground. Pkt., 10c; oz., 40c.

**SP16. KING WHITE.** Large blossoms of purest, glistening white. Pkt., 10c; oz., 30c.

**SP17. LORD NELSON.** Splendid navy blue Spencer. Pkt., 10c; oz., 30c.

**SP19. MARGARET ATLEE.** (Improved.) Extra large flowers of rich glowing pink, softly suffused with salmon. Extra fine. Pkt., 10c; oz., 40c.

**SP20. MARKS TEY.** Maroon standard, bluish wings. Large. Pkt., 10c; oz., 40c.

**SP21. MASTERPIECE.** Large clear lavender, slightly flushed rose. Pkt., 10c; oz., 40c.

**SP22. MRS. TOM JONES.** Bright delphinium blue. Finer than Wedgewood. Pkt., 10c; oz., 40c.

**SP23. NUBIAN.** Deep maroon. Pkt., 10c; oz., 30c.

**SP24. ORCHID.** Lavender, suffused pink, suggesting the rich tone of the Cattleya orchid. Pkt., 10c; oz., 30c.

**SP25. PICTURE.** Enormous flowers on long stems, exquisitely frilled. Cream and pink shades, blended, with deeper flush on wings. Vigorous grower. Pkt., 10c; oz., 40c.

**SP28. ROYAL PURPLE.** Rich rosy purple. Large and fine. Pkt., 10c; oz., 40c.

**SP29. ROYAL SCOTT.** True scarlet, outshining all other scarlets to date. Pkt., 10c; oz., 40c.

**SP31. THE CARDINAL.** Intense poppy scarlet. Extra fine. Pkt., 10c; oz., 40c.

**SP34. TANGERINE IMPROVED.** Deep orange, almost the color of tangerine-orange. Flowers large and beautifully waved. Pkt., 10c; oz., 40c.

**SP35. YOUTH.** (New). Large white, pink, picotee edges. Pkt., 10c; oz., 50c.

*SONG'S*

# Beautiful, Bountiful, Brittle Beans

All are brittle when young. Nos. 1 and 7 are the favorite yellow and green podded kinds, and remain tender and brittle for a long time. All but V9 are bush varieties. All are priced prepaid.

For larger lots, see page 22.

## Burpee's Brittle Wax

V1. The name tells the story. If I were to suggest any other name it would be **Icicle**, for the pods break like icicles, with hardly ever a sign of string, even when full grown. The flavor is best ever. Yield good. What more could one wish?

From introducer's stock I've been growing this wonderful brittle wax bean for six years, over on the Western Slope, at an altitude of 6,000 feet, and now have extra fine acclimated seed, matured to perfection. The long, round, fleshy pods are a beautiful yellow.

Beans, long, white, with black eye. Good as shell beans also. Pkt., 10c;  $\frac{1}{2}$  lb. 22c; lb., 40c.

V3. DWARF BLACK WAX. Beans black; pods yellow. Vines short. Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

V6. WARDWELL'S WAX. Very large; heavy yielder. Market variety. Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

V7. BURPEE'S Stringless Green Pod. Might be called a green pod "Brittle Wax." Beans Brown. Pkt. 10c; 1-2 lb. 20c; lb. 35c.

V9. KENTUCKY Wonder Pole. The favorite pole bean. Pkt., 10c; 1-2 lb., 20c; lb. 35c.

V10. COLORADO CREAM BUTTER. (Aztec.) Immense white bean, shape of navy, with lima flavor. Pkt., 10c;  $\frac{1}{2}$  lb., 22c; lb., 40c.

VII. HENDERSON'S LIMA. Pkt., 10c;  $\frac{1}{2}$  lb., 22c; lb., 40c.

V12. FORDHOOK LIMA. Large, juicy and sweet "butter bean." Crop short. Pkt., 15c;  $\frac{1}{2}$  lb., 28c; lb., 50c.

**Beat the Bean Bug—See Page 59**

**SONGS "Live Beets"**

**V14. EARLY WONDER.** A splendid extra early variety that is meeting with great favor. This quick growing, attractive variety is of the favorite globe shape. The flesh is dark red, sweet and tender. Fine for summer and fall use, canning, or storing for winter. Select seed. Large Pkt., 10c; oz., 15c.

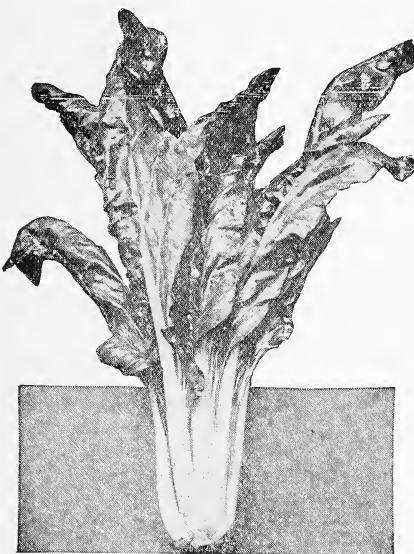
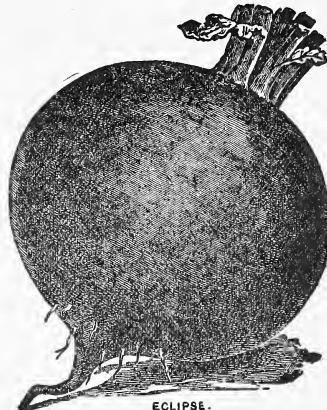
**V16. CROSBY'S EARLY EGYPTIAN.** Preferred now by most gardeners to the old flat type Egyptian. Uniform turnip shape; flesh deep red; quick growing. Large Pkt., 10c; oz., 15c.

**V17. EARLY ECLIPSE.** Similar to Early Wonder and Crosby's in season and shape, but flesh a brighter red, preferred by some. Large Pkt., 10c; oz., 15c.

**V18. DETROIT DARK RED.** Globe shape; smooth; dark red; tops small, admitting of close planting. Good all around early, medium or late variety. Splendid for canning when small. "Can you beet it?" Large Pkt., 10c; oz., 15c.

**V19. BLOOD TURNIP.** Discontinued. Use Detroit.

For larger lots, see page 22.

**SONGS "3-in-1" Vegetable**

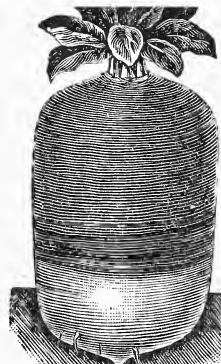
**SWISS CHARD** — Alias Spinach Beet, Asparagus Beet, "Chicken's Delight." Leaves may be cooked for "greens" like spinach. The stalks may be cut lengthwise and crosswise, the quartered pieces then boiled and served in butter or milk dressing like asparagus. Grow plenty and feed surplus to the chickens. They like Swiss Chard and thrive on it. Don't dig up the root or cut off all the top. Pull off the outside stalks. Others will keep forming from heart of plant. Grows in hot weather when spinach lies down on the job. Stands a lot of freezing in fall and still keeps growing. Really a wonderful vegetable. Add it to your list. Large Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 40c.

**HOW TO GROW "LIVE BEETS"**

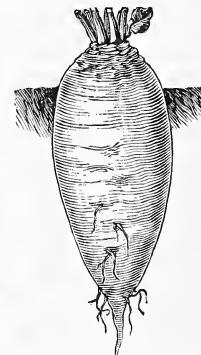
**Culture.** Plant any time from early spring to August. Most people make a mistake by not planting beets alone in summer, as well as in spring. They come quickly, the small half-grown size being best for canning and fine for summer use also. An ounce of seed will sow 50 feet of row. Cover  $\frac{3}{4}$  inch.

**Mangels, Sugar Beets**

**Culture.** Sow 4 to 6 lbs. to acre, in rows 24 inches apart. In good ground you can raise 30 to 40 tons per acre. Very valuable for feeding stock, especially milch cows. A mixture of mangels and sugar beets is good combination. Add carrots for dessert!



Golden Tankard



Sugar Beet

**Prices:** All Mangels, also **SONGS** Special Mixture of Mangels and Sugar Beet: Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 70c; 5 lbs., \$2.75; 10 lbs., \$4.75, prepaid. Ask for prices on larger lots.

**V22. MAMMOTH LONG RED.** Great yielder.

**V23. GOLDEN TANKARD.** Roots rather short.

**V24. DANISH SLUDSTRUP.** Ovoid shape; reddish-yellow; heavy cropper.

**V25. GIANT HALF SUGAR.**

**V26. WANZLEBEN SUGAR BEET.** The standard sugar beet. Extra good seed; true strain. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 70c.

**SONGS Special Mixture**

**V27.** A well-balanced mixture of Mangels and Sugar Beet, for milk cows. Mixed by myself from our tested seed. Better than all Mangels or all Sugar Beet. Pkt., 5c; oz., 10c;  $\frac{1}{4}$  lb., 25c; lb., 65c; 5 lbs., \$2.50; 10 lbs., \$4.50.

## *SONG'S* Cabbage—Best Kinds for Home and Market



**Culture:** For early plants start seed in box, cold-frame or hotbed. For main crop sow seed in garden. Transplant where wanted. Cabbage responds to very frequent cultivating and hoeing. Set early plants April and May. For winter use set plants in June.

**PRICES:** Except Copenhagen Market and Round Head, all at: Small Pkt., 5c; Large Pkt., 10c; oz., 25c. For larger lots, see page 22.

**V28. WINNINGSTADT.** Heads firm, slightly pointed, standard early sort, but good also for winter.

**V29. EARLY JERSEY WAKEFIELD.** Small, pointed head. Very early.

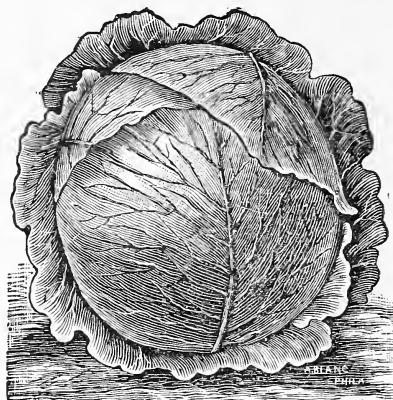
**V30. ENKHUIZEN GLORY.** About same season as Winningstadt, but head is round instead of pointed. Yields heavy crop and does well even on rather poor soil.

**Special Notice:** All my seed of Copenhagen Market and Danish Round Head comes direct to us, in sealed bags, from the originator of the famous Copenhagen Market cabbage, at Copenhagen, Denmark.

**V31. COPENHAGEN MARKET.** See description below. Originators' stock. Pkt., 10c; oz., 30c.

**V34. LATE FLAT DUTCH.** An old variety but still a favorite with many. Very large.

No Cabbage Plants by Mail.



**V35. DANISH ROUND HEAD.** (Short Stemmed Hollander.) One of the best main crop varieties. Heads very solid; good keeper. This is the main variety grown by large gardeners and shippers for fall and winter use. It's the standard best late cabbage. *SONG'S* special stock Danish grown seed. Pkt., 10c; oz., 35c.

**V36. MAMMOTH ROCK RED.** Large sure-heading red cabbage.

**V37. SAVOY CABBAGE.** Leaves beautifully crimped. Finest flavor.

**V38½. BRUSSELS SPROUTS.** Miniature cabbages; grow closely on stalks. Oz., 30c.

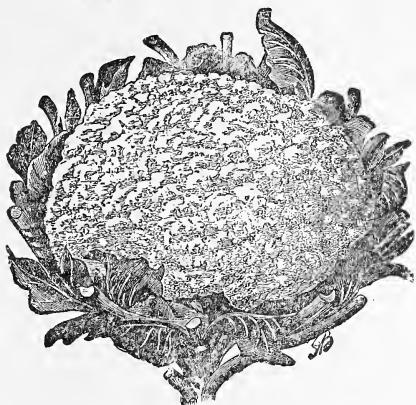
**CHINESE, or CELERY CABBAGE**

**V39½.** Tastes more like lettuce than cabbage or celery. Early plants often run to seed. Sow in June. Tie up like cauliflower to blanch. Pkt., 10c; oz., 35c;  $\frac{1}{4}$  lb., 90c.



## *SONG'S* Copenhagen Market—Best Early Round Head

It's growing in favor every year, not only the best Early Round Head Cabbage, but also as a splendid sort for winter, when planted a little later than the winter varieties. The dish-shaped leaves fold so tightly, and the heads are so solid, that it can be grown closer together than other kinds of equal weight. Pkt., 10c; oz., 30c.

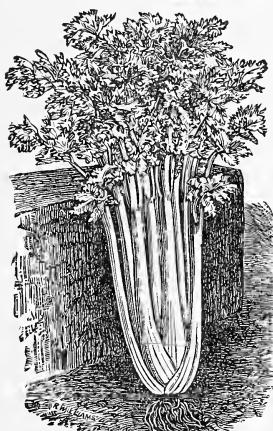
*LONG'S* Cauliflower

V38. **EARLY SNOWBALL.** (Henderson's strain.) Early and main crop variety.

V39. **DRY WEATHER.** Very large, and fine white heads. Resists drought well. Some gardeners prefer this to Snowball and grow it exclusively.

Price for either variety: Pkt., 10c;  $\frac{1}{4}$  oz., 30c;  $\frac{1}{2}$  oz., 90c; oz., \$1.50;  $\frac{1}{4}$  lb., \$5.50.

No Cauliflower Plants by Mail.

*LONG'S* Celery

**Culture.** Sow in protected bed; sow thin and cover lightly. Transplant in June. Ask your County Agent or Agricultural College for special information on celery growing.

V44. **GOLDEN SELF-BLANCHING.** One of the best early kinds for fall use. Pkt., 10c;  $\frac{1}{2}$  oz., 30c; oz., 45c;  $\frac{1}{4}$  lb., \$1.50.

V46. **GIANT PASCAL.** The best late celery for winter use. May be blanched in garden, but to get those brittle sweet white stalks it

should be taken up, trenched or banked up in colors so as to grow new stalks from the old roots. Pkt., 10c;  $\frac{1}{2}$  oz., 25c; oz., 40c;  $\frac{1}{4}$  lb., \$1.20.

V45. **WHITE PLUME.** Preferred by some to Self-Blanching. Fall variety easily blanched. Pkt., 5c;  $\frac{1}{2}$  oz., 25c; oz., 45c.

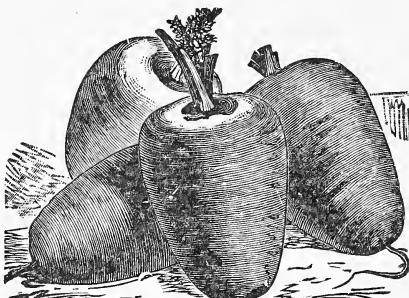
V47. **CELERIAC, or TURNIP-ROOTED CELERY.** Little known, but fine for seasoning meats and soups, also for salads. Grown exclusively for its turnip-shaped roots. Pkt., 5c; oz., 25c.

**Washington Asparagus**

Seed: Pkt., 10c; oz., 20c;  $\frac{1}{4}$  lb., 75c.  
Roots: 12 for 50c; 36 for \$1.00 100 for \$2.50 prepaid.

*LONG'S* Best Four Carrots

For large lots see page 22.



V40. **OXHEART.** Short but thick roots, bright orange flesh; best for heavy soil; good table carrot. Large Pkt., 10c; oz., 15c.



V41. **DANVERS HALF LONG.** Smooth medium length, orange color roots. Small Pkt., 5c; Large Pkt., 10c; oz., 15c.

V42. **CHANTANEY.** Large. Similar to Danvers but not quite so long. Splendid table carrot. Large Pkt., 10c; oz., 15c.

42 $\frac{1}{2}$ . **NANTES.** An extra sweet table carrot. Roots do not taper much, but are almost cylindrical, about 6 inches long, and very smooth. Flesh orange-red, very sweet, and almost without core. Just fine. Try it. Large Pkt., 10c; oz., 15c.

V43. **GIANT WHITE BELGIAN.** Heavy yielding stock carrot. Pkt., 5c; 1 oz., 10c.

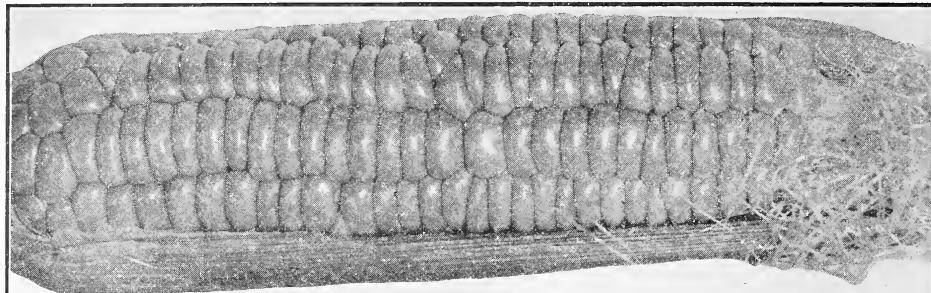
**Parsley**

**Culture.** Soak seed in tepid water a few hours before planting. Cover  $\frac{1}{4}$  inch.



V125. **DARK MOSS CURLLED.** Fine for garnishing. Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c.

# LONG'S Acclimated SWEET CORN Seed



*Long's* Early "Peep O' Day"

**V48.** It's the early bird. Stands early planting and hustles right along as though knew how eager we are for first roasting ears of the season. Originally this variety was quite small, but my Colorado grower has been selecting for size, and you will find a decided improvement in size of this favorite early corn. A money-maker because people will pay almost any price for first roasting ears on the market. Size is not so important then as later in the season. Select, thoroughly matured, Colorado seed.

### *Long's* Improved Golden Bantam

**V49.** If you plant just one kind of Sweet Corn, then make this the one. My Colorado strain has been improved the same as my Peep O' Day, by selection year after year, so that my stock now runs considerably larger than the regular Golden Bantam. Instead of just 8 rows, many ears will have 10 and 12 rows. One of the many good points about Bantam is that the silks or "whiskers" come out easily and leave a nice clean ear for cooking, while its special advantage over other varieties always has been and always will be its sweetness. In this it delivers the goods.

### *Long's* Giant Bantam

**V50.** Known also as Bantam-Evergreen, from crossing of these two splendid varieties, combining to a large degree the sweetness of Bantam and the size of Evergreen. Try this in place of Evergreen, or plant part each. But if you plant just one, plant Bantam.

### *Long's* Golden Cream

Another addition to the Golden Bantam family. Cross between Bantam and Country Gentleman, having size, deep grains and zig-zag appearance of the latter, but more the color of Golden Bantam. A strong recommendation for Bantam is its being crossed with other kinds to improve them.

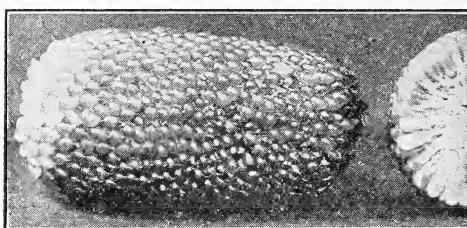
**V53. STOWELL'S EVERGREEN.** The standard big late Sweet Corn.

**V54. COUNTRY GENTLEMAN.** Tall, late, very sweet, with grains set zig-zag.

Several varieties discontinued. "Plant the best. Forget the rest."

Prices: All Sweet Corn at same price: Large Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c, pre-paid. For larger lots see page 22.

*Long's* Japanese Rice Pop Corn



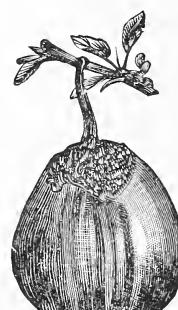
Ears are short and "stubby," but so "heavy set" or big around that the yield is something astonishing. Each stalk has several good ears. Some ears have 32 rows. Grains very deep and slim. Hulls so thin and transparent that the Pop Corn just melts in your mouth.

Price: Pkt., 10c;  $\frac{1}{2}$  lb., 20c; lb., 35c.

### Two Other Good Kinds

**V56. WHITE RICE.** Small pointed grains. Kind used by the Pop Corn wagons in cities. Pkt., 5c;  $\frac{1}{2}$  lb., 15c; lb., 25c; prepaid.

**V57. MAMMOTH WHITE, or SPANISH.** Extra large, sweet and tender. Great seller. Usually sells on cob in grocery stores. Extra early. Pkt., 5c;  $\frac{1}{2}$  lb., 15c; lb., 25c; prepaid.



### EGG PLANT

**Culture.** Start plants in box or hotbed. Do not set out until quite warm weather. Very tender. Ground should be rich.

**V68. BLACK BEAUTY.** An early improved variety. Pkt., 10c.  $\frac{1}{2}$  oz., 30c; oz., 50c.

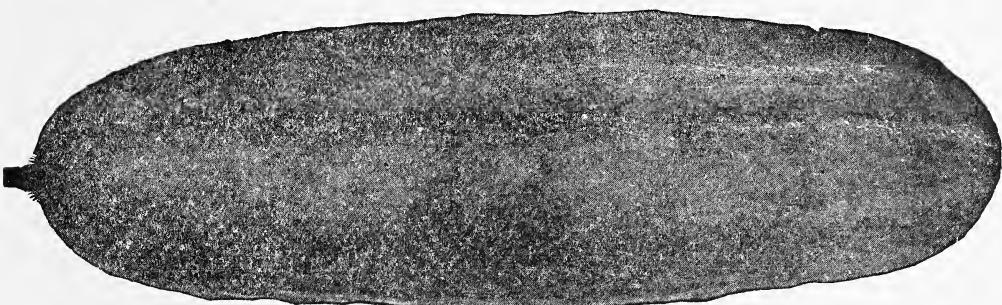
### NO PLANTS

Am not lined up to supply Egg Plant plants this season.

### MUSTARD

**V123 $\frac{1}{2}$ . OSTRICH PLUME.** Leaves long, ruffled and curved. Cook it like spinach. Pkt., 5c; oz., 10c;  $\frac{1}{2}$  lb., 30c.

## LONG'S Cucumbers—Best Pickling and Slicing Kinds



**Culture.** Plant (May and June) in hills a few feet each way. Most varieties are good for pickles when small or will do for slicing if left to grow larger. Early Fortune is especially good for either pickling or slicing.

**Prices:** All CUCUMBERS at: Small Pkt., 5c; Large Pkt., 10c; oz., 15c. For larger lots see page 22.

**V60. KLONDIKE.** Very early strain of white spine type with dark green skin.

**V61. EARLY FORTUNE.** Fine for pickles when small, and good slicer if allowed to grow to large size. Fruits very uniform.

**V62. EARLY WHITE SPINE.** An old favorite, still good.

**V63. BOSTON PICKLING.** Standard for pickles. Same as Boston Pickling.

**V64. IMPROVED LONG GREEN.** Always good.

**V65. DAVIS PERFECT.** So nearly perfect in shape that often brings extra price in the market. Very good.

**V67. WEST INDIA GHERKIN.** Small "cuc," 2 to 3 inches. Used for pickles. Seeds very small. Pkt., 5c;  $\frac{1}{2}$  oz., 15c; oz., 25c.

## LONG'S Head Lettuce



**Prices:** All varieties LETTUCE (except V72): Small Pkt., 5c; Large Pkt., 10c; oz., 15c. For larger lots see page 22.

**V70. IMPROVED HANSON.** Good heading variety and may also be used as leaf lettuce when young.

**V71. ICEBERG.** Similar to Hanson. Crisp and tender. Fine as leaf lettuce also.

**V73. BIG BOSTON.** Popular market variety.

**V74. MAY KING.** Extra early.

**V75. DENVER MARKET.** Rather loose head; leaves light golden green, beautifully savoyed or crimped.

**V76. EARLY PRIZE HEAD.** Forms large loose head. Leaves crimped; tinged brownish-red. Tender, crisp and sweet.

**V79. COS, or CELERY LETTUCE.** Do not confuse with celery cabbage. It is one of the surest blanching varieties, of elongated or cone-shaped form. The outer leaves overlap so that the inner ones are blanched.

## Mountain Head Lettuce

Long's Special Stock

**V72. NEW YORK.** Also called Los Angeles, Wonderful, Mountain Iceberg, and Western Iceberg. May have several more names, for all I know.

Don't pay extra for new, high sounding names. If you want to grow the best head lettuce of this type, then get the best seed of the genuine New York, no matter whether it is listed as this or given some new name. I formerly listed this as Los Angeles, explaining that it is identical with New York, but as most growers are more familiar with the name New York, I'm using the name New York first, with the explanation following it.

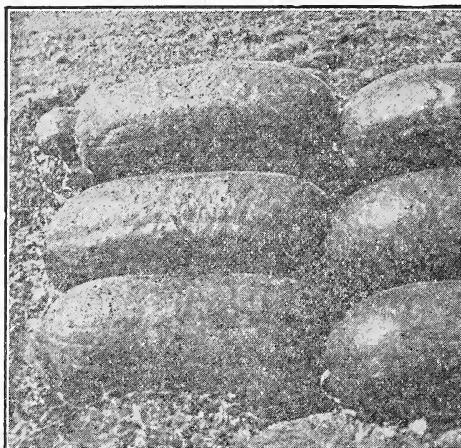
For years I've supplied many of the largest and most successful growers of Colorado Mountain Head Lettuce with this special high grade strain. It is grown for me by a lettuce seed grower in California who has specialized in this for 15 years, and developed an ideal type that is demanded by successful growers. Supply short again this season. Pkt., 10c; oz., 30c; 1-4 lb., \$1.00; lb., \$3.00, prepaid. Order early.

Write for prices on larger lots. I have only one grade to offer—the very best.

## LONG'S Leaf Lettuce

**V77. BLACK SEEDED SIMPSON.** Grows quickly, making fluffy loose bunch of tender creamy leaves of delicate flavor. Fine.

**V78. GRAND RAPIDS.** Makes large compact bunches of light green leaves with fringed edges. The kind to grow in hothouses and hotbeds or coldframes. Splendid for open garden also.

*LONG'S* Water Melons

Kleckley's Sweet or Rocky Ford

*LONG'S* "Favorite Four"

**V92. KLECKLEY'S SWEET.** The skin is dark green, flesh bright scarlet, ripening close to the skin. Seeds lie close to rind, leaving a large solid heart which does not crack open when ripe. The scarlet flesh is sweet and sugary and of such texture that it leaves no strings of pulp whatever in eating. Is so exceptionally good that I feel it should head any list of melons offered. Large Pkt., 10c; oz., 15c.

**V93. TOM WATSON.** Similar to Kleckley's Sweet, but still larger, and firmer, standing shipping and handling the best of any first-class melon. The rind is thin but tough; flesh bright red, delicious, sweet and satisfying. Large Pkt., 10c; oz., 15c.

**V94. ICE CREAM.** Fine, very sweet, early melon for home or home market. Will not stand rough handling or shipping. Large Pkt., 10c; oz., 15c.

**V95. IRISH GRAY.** Large long melons with gray skin. Flesh firm, crisp and sweet. Shell tough, standing rough handling in shipping. Large Pkt. 10c; oz. 15c.

*LONG'S* Musk Melons

**V80. ROCKY FORD.** The original, well-known, green meated strain. Pkt., 5c; large pkt., 10c; oz., 15c.

**V83. POLLOCK No. 10-25, SALMON TINT.** The best Rocky Ford cantaloupe. Heavily netted; cuts with golden center, shading to emerald green near the rind. Large Pkt., 10c; oz., 15c.

**V85. EMERALD GEM.** Small, early salmon flesh melon, fine grained and sweet, but poor keeper. Pkt., 5c; large pkt., 10c; oz., 15c.

**V86. BURRELL'S GEM.** Larger, longer and firmer than Emerald Gem. Rather late. Pkt., 5c; large pkt., 10c; oz., 15c.

**V88. HONEY DEW.** Large late melon that ripens after being picked and stored, if season too short for maturing in field. Salmon flesh. Large Pkt., 10c; oz., 15c.

**V89. HONEY DEW.** Same as V88, but flesh green. Large Pkt., 10c; oz., 15c.

**V81. BAY VIEW.** Large, long, early musk melon; flesh green. Pkt., 5c; oz., 15c.

**V90. GARDEN LEMON.** Very small. For pickles and preserves. Pkt., 5c; oz., 20c.

**V84. COLORADO CITRON.** Used for preserves. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 35c.

For larger lots, see page 22.

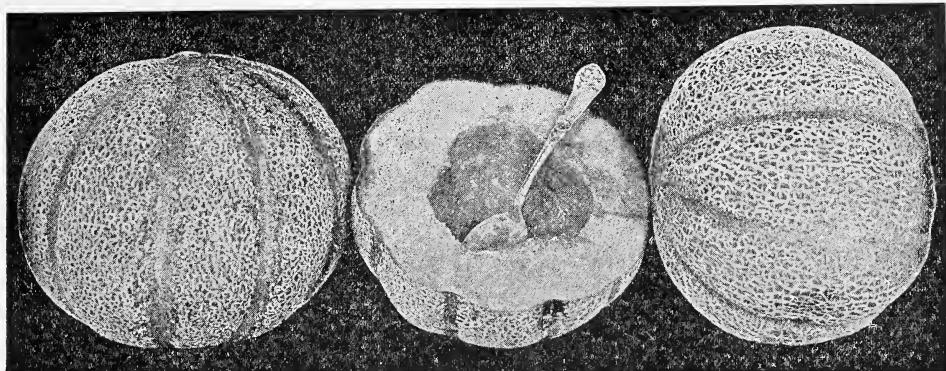


## Banana Musk Melon

**V88½.** Here's another musk melon that seems to be appreciated more from year to year. Is not a new variety, but may be new to some of you. Is called the Banana musk-melon, since its shape resembles a banana, as you will note in this photo I had taken

of a sample brought in by Mr. Selby, another good customer out east a few miles. Not all resemble so closely the banana. Shapes vary, but this is the general type. They sometimes grow quite large, up to 28 or 30 inches long. Does not take a great stretch of the imagination to credit this melon with the flavor as well as shape of a good banana. Large Pkt., 10c; oz., 15c.

# LONG'S GREELEY WONDER MUSK MELON



*Long's* Greeley Wonder Melon—"Sweet as Honey"—Sure "Yum-Yum"

**How time flies!** Doesn't seem like thirteen years since I was up around Greeley, Colorado, looking over my seed crops there, just in the melon season.

**On the ranch of my good friend, G. J. Hafendorfer,** I ran across a musk melon that I'd never seen before. Never heard of such a melon. Never believed there could be such a melon. Hardly believed it after seeing and sampling it liberally.

**It was so large, so sweet and luscious,** and yet so extremely early that I felt like Uncle Hiram at the circus, who, seeing the giraffe, declared: "Gawsh-all-hemlock, there hain't no such animal!"

**Sez I to myself, sez I:** "Here's something I must get for my customers." Asked "Haf" where he got this melon, and what he called it. Then came another surprise. He didn't know where it came from, and it didn't have any name. Said it was originated some years before by a Greeley gardener, but no one seemed to know just to whom the honor belonged. Greeley gardeners had been growing it for some years, getting the seed from each other, but it had never, to their knowledge, been grown anywhere else. (Some called this the Lansdale, others referred to it as the Steele melon.)

**As for its origin,** the plot thickens, the more I try to follow it. Up to date I have heard of four different Greeley old-timers who each claim the distinction of originating this truly wonderful melon.

**However, this is not the important point.** Nor is the next point I shall mention important, but I'm just human enough to feel proud of the fact—and maybe get chesty and brag a little about it—that I myself took this in hand, named it Greeley Wonder, and was the first seedsman to offer it outside the Greeley district. In fact, I hollered about it several years before anyone else in the business sat up and took notice. But, as the merits of Greeley Wonder have become known, the demand has increased by leaps and bounds. Last year there was what you might call a landslide for it. Greeley Wonder just about had the right of way wherever it came in competition with other musk melons and cantaloupes.

**You'll just have to sample** a good ripe Greeley Wonder, to know exactly what it's like, but this description may help some: It's a big, almost round, melon, as shown above,

usually heavily netted. As usually grown, each melon weighs from 4 to 6 pounds, but good growers pick them up to 8 and 10 and even 12 pounds. The flesh is salmon colored and very sweet. One slice calls for another.

**Ordinarily, to get earliness we must sacrifice** either size or quality, or both. To get size and quality we must be content to wait until later in the season. But the wonderful thing about this melon is that it has all the splendid qualities I have mentioned, and to top it off, is extra early, coming in ahead of the well-known, smaller, Rocky Fords and many others. Think what this means for home or market! You get your melons when people are on tiptoes, waiting for the first home-grown ones to show up. Market gardeners please their customers, and cash in at a good price before Jack Frost gets a look-in, and "everybody's happy."

**V91½.** Price: Pkt., 10c; oz., 25c;  $\frac{1}{4}$  lb., 70c; lb., \$1.80; 3 lbs., \$5.00; 5 lbs., \$8.00, prepaid.

**NOTE—Even from the best seed,** a few Greeley Wonders will not come quite true. The percent of these untrue melons is not large, but some must be expected. My seed specially selected. Better than most stocks.

## The Andrus Musk Melon

**V91½.** A cross between Bay View and Greeley Wonder.

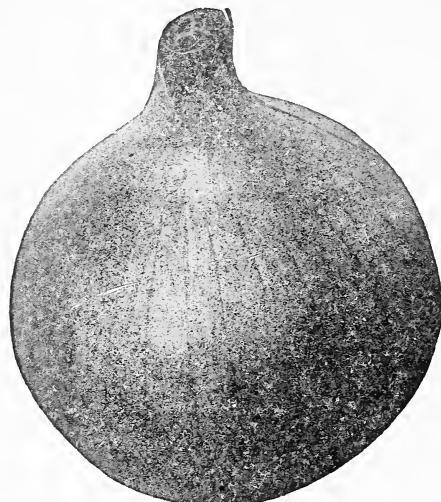
Styles in melons change, as in other things. Most people now prefer a salmon flesh musk melon. Bay View is green flesh. So to be in style Bert Andrus crossed the Bay View with Greeley Wonder several years ago, and has finally gotten a melon of the same large size, long shape, and earliness as Bay View but with salmon flesh, and better flavor than the Bay View.

As I told you last year, this melon is a good one to go with Greeley Wonder, because it ripens about the same time but keeps longer after being picked.

I might have offered this as the "Long" melon, for it is "long," but believe we should give the credit to Andrus, so will call it the "Andrus Melon." Pkt., 10c; oz., 20c;  $\frac{1}{4}$  lb., 60c; lb., \$1.60.

# SONG'S, High-Grade Tested Onion Seed

## SONG'S Select Prize-Taker



**V96.** The big yellow variety, acclimated from the popular Spanish Onion. Flesh white, and milder than many other varieties. Oz., 25c.

Except where noted, all ONION SEED at: Small Pkt., 5c; Large Pkt., 10c. For larger lots, see page 22.

## Yellow Globe Danvers

**V106.** A well-known variety, described by its name, Yellow Globe, being similar to the old Flat Danvers but globe instead of flat. As globe onions are now favored more than flat, I have discontinued the Flat Danvers, and recommend the Globe Danvers instead. The Flat Danvers is used mostly now for growing sets. (But if you want to grow your own sets, try Brown Australian. It is one of the best for sets.) Oz., 30c.

## SONG'S Red Wethersfield

**V99.** An old red variety of the flat type, very popular in the South and does well in our section, though the Red Globe is now taking first place. Most Red Sets are grown from Red Wethersfield seed. Oz., 25c.

## SONG'S New Strain Colorado Red Globe

**V107.** Some years ago I got Mr. W. B. Foster, a leading gardener near Greeley, Colorado, to comb the country over and select the finest lot of true Red Globe onions to be found in that well-known onion growing district. From these selected onions he grew me a fine lot of seed.

Then I sent some of this seed over the range, into higher altitude, to my good friend A. L. Franklin, who improved and made

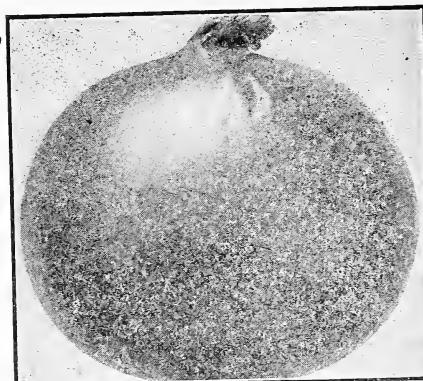
## SONG'S Mountain Danvers

### Special Improved Strain

**V103.** Over on the Western Slope, way up over 6,000 feet, there was a man with an idea 27 years ago. This man believed he could develop an Onion that would yield well and mature perfectly in his section, where onion growing had been given up on account of the short season. This man made good. By selecting and re-selecting he finally "built" Mountain Danvers.

For years Mountain Danvers onion made a great record as a flat to medium globe, but not uniform in color or type. Then my friend, A. L. Franklin, took it in hand and by years of selection brought it up to an ideal globe of unvarying golden yellow color. The bulbs are as sound as baseballs and almost as perfect in shape. Necks thin; few or no scullions.

SONG'S Improved Mt. Danvers is extra early, often being ready for market before main crop varieties come on, when it brings much higher prices. It is also one of the best main crop kinds, keeping and shipping especially well.



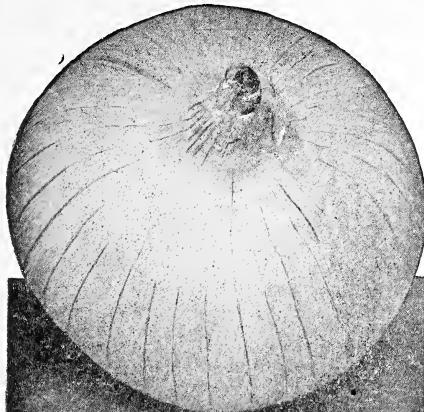
SONG'S Improved Mt. Danvers insures a crop in many localities where season is short and where ordinary kinds would not make good. Yet it is also meeting with much favor in lower altitudes. In some localities it does not attain as large size as the Southports and other globes, while in others it has been grown to weigh a pound, record yields of 600 sacks to the acre being made under ideal conditions over on the Western Slope where this onion originated. Pkt., 10c; oz., 35c.

## Colorado Red Globe

famous my Mountain Danvers strain of yellow globe.

Franklin took this stock in hand, worked on it several years, and has improved it still more, in type, rich red color and earliness of maturity.

Believe this is just about the finest Red Globe stock obtainable. Pkt., 10c; oz. 40c;  $\frac{1}{4}$  lb., \$1.30; lb., \$4.90, prepaid. Ask for prices on larger lots.

*LONG'S* White Silverskin*LONG'S* Southport Red Globe

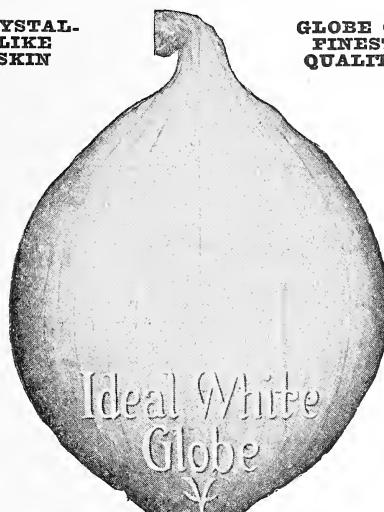
**V102.** (Also called White Portugal and White Danvers.) Produces good medium size bulbs. Is early, mild and long keeper. The standard for growing White Onion Sets. Also planted largely for bunching and pickling onions. If for pickling the seed should be sown very thick to prevent bulbs becoming too large. Oz., 35c.

For larger lots, see page 22.

*LONG'S* Ideal White Globe

CRYSTAL-  
LIKE  
SKIN

GLOBE OF  
FINEST  
QUALITY



**V97.** Just what you may have been looking for in an ideal globe. Pure white, long keeping onion that matures fairly early. Oz., 35c.

*LONG'S* Brown Australian

**V100.** Very solid onion of light brown color; matures early; keeps well. Oz., 25c.

*LONG'S* Early Barletta

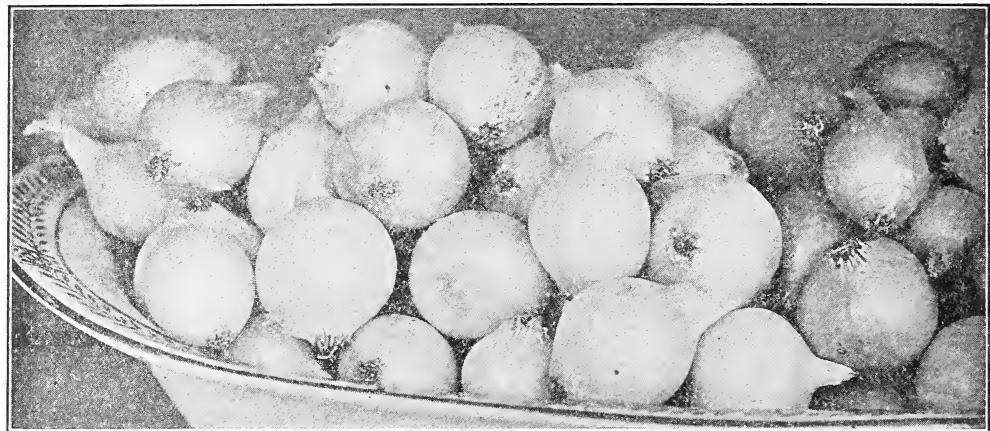
**V101.** An early white variety used for pickling. Plant very thick. Oz., 30c.

**V104.** Grown from carefully selected bulbs of the popular market variety, large Red Globe—ideal type, deep rich red color. Splendid for the home garden also. Red Globe is grown extensively in the Greeley onion district, and is the leading money maker for big onion growers in northern Iowa, especially around St. Ansgar, and, in fact, is a standard sort everywhere. Heavy yielder. Oz., 30c.

*LONG'S* Southport Yellow Globe

**V105.** A good running mate for my select Southport Red Globe. Highest grade seed, grown only from carefully selected bulbs true to type and color. Oz., 30c.

## *LONG'S* Colorado-Grown "Hand-Polished" Onion Sets



**That's no joke.** These sets are actually hand-polished as they are rubbed by hand to remove all dirt, roots, tops and any other trash.

**For a succession** of fresh Green Table Onions, plant sets at different times, from early March until July.

**Large Dry Onions** for fall and winter use are easily raised from sets. Costs more than to plant the seed, but returns are quicker, and most of the tedious hand labor of thinning and weeding is obviated. Use the smaller size sets for growing large bulbs. Plant hazel or tiny size, not the larger unless you have to, as the smaller sets are cheaper even at higher price per quart and make better onions.

### Prices for Regular Sets

RED or YELLOW.	2nd Zone	3rd Zone	4th Zone	5th Zone
Quart . . . . .	\$ .25 . . .	\$ .26 . . .	\$ .28 . . .	\$ .30
4 Quarts . . . . .	.85 . . .	.89 . . .	.97 . . .	1.05
8 Quarts . . . . .	1.50 . . .	1.58 . . .	1.74 . . .	1.90
16 Quarts . . . . .	2.70 . . .	2.86 . . .	3.18 . . .	3.50

#### WHITE.

WHITE.	2nd Zone	3rd Zone	4th Zone	5th Zone
Quart . . . . .	.29 . . .	.30 . . .	.32 . . .	.34
4 Quarts . . . . .	1.00 . . .	1.04 . . .	1.12 . . .	1.20
8 Quarts . . . . .	1.75 . . .	1.83 . . .	1.99 . . .	2.15
16 Quarts . . . . .	3.30 . . .	3.46 . . .	3.78 . . .	4.10

## *LONG'S* "Tiny" Onion Sets

The smallest of all Onion Sets, about the size of a large garden pea. You don't need to set them, just sow in a row like peas and cover about one inch. They make early green onions a little later than regular sets and much earlier than seed.

*LONG'S* Tiny Sets are especially valuable for growing regular onions for winter use. Being so small you get all the way from 600 to nearly 1,000 Tiny sets to the quart, and practically every set will make an onion, the crop maturing earlier than onions from seed.

Will have a limited supply of Tiny sets, in White only. Price for White Tiny Sets: Pint, 40c; quart, 75c, prepaid.

### *LONG'S* Hazel Size Sets

(In Yellow and White Only.)

Hazels are just like other bottom sets except that they run smaller in size. The smaller size not only gives you about twice as many sets to the quart as you get when buying ordinary size sets, but also gives you a better set, for this reason: A good many sets of the size usually sold, will send up a seed stalk. This does not matter so much if onions are grown for early green onions, but if wanted for mature dry bulbs the seed stalk causes a hard, woody center.

But with Hazel Size Sets you rarely if ever have any trouble with seed stalks. They make the finest green onions and the best of matured bulbs, and the crop is ready for market before onions from seed come in.

### Prices for Hazel Sets

(About 300 to the Quart.)

YELLOW.	2nd Zone	3rd Zone	4th Zone	5th Zone
Quart . . . . .	\$ .35 . . .	\$ .36 . . .	\$ .38 . . .	\$ .40
2 Quarts . . . . .	.66 . . .	.68 . . .	.72 . . .	.76
4 Quarts . . . . .	1.25 . . .	1.29 . . .	1.37 . . .	1.45

#### WHITE HAZELS.

WHITE HAZELS.	2nd Zone	3rd Zone	4th Zone	5th Zone
Quart . . . . .	\$ .40 . . .	\$ .41 . . .	\$ .43 . . .	\$ .45
2 Quarts . . . . .	.75 . . .	.77 . . .	.81 . . .	.85
4 Quarts . . . . .	1.40 . . .	1.44 . . .	1.52 . . .	1.60

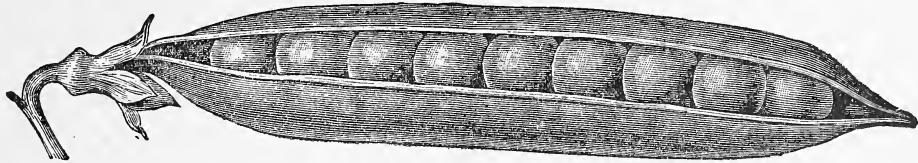
(No Red Hazels. Bags weighed in.)

Our sales of Hazel and Tiny sets are increasing greatly from year to year, as our customers learn of their real value.

Crop of Hazel onion sets very short. Better give second choice as to color or size, or both, especially later in the season. If out of Hazel size, shall we send regular?

All sets figured at 32 lbs. to bushel (1 lb. to quart).

# Popular, Profitable Peas for Particular Planters



## *SONG'S* Large, Long, Luscious Laxtonian. Early, Too.

V406. This big, long podded, variety is ready for use as early as the small American Wonder, and only a little later than Alaska. Pods are long but vines are short. Peas are large, wrinkled, sweet, running 7 to 10 in a pod. Vines require no staking; rows may be planted close, to economize space; peas easily gathered by the handful, and the shelling of a mess is a short job, on account of the size of pods and peas. Our sales of Laxtonian have increased from year to year so that now we sell almost as much of this as all the others together. Pkt., 10c;  $\frac{1}{2}$  lb. 22c; lb. 40c. Prepaid.

## *SONG'S* Montana-Grown Early Giant Pod "Blue Bantam"

V408. Nothing small or "Bantam" about this pea but the vines, which run 12 to 16 inches according to season, soil, water and cultivation. But the PEAS! Fine big pods, usually well-filled, with large and luscious peas. So like Laxtonian in every way that it's a toss-up as to which is the better. You can't lose if you bet on either one. Pkt., 10c;  $\frac{1}{2}$  lb., 22c; lb., 40c. Prepaid.

## *SONG'S* Favorite Dwarf Variety for Second Early

V418. DWARF TELEPHONE. A second early pea with short to medium vine, but pods and peas large like Laxtonian and almost as large as Tall Telephone. One of the best. Pkt., 10c;  $\frac{1}{2}$  lb., 22c; lb., 40c. Prepaid.

## Nine Other Good Kinds

**V410. ALASKA.** Early smooth pea, standing early planting, but hard to sell after the larger sorts come in a little later. Pkt., 5c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

**V412. AMEER, or GIANT ALASKA.** Almost as early as Alaska, but much larger and better; is also smooth seeded, and will stand early planting. Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

**V420. DEFIDANCE.** About same season as Dwarf Telephone; vines more rugged, and pods a little larger. Pkt. 10c; 1-2 lb. 22c; lb. 40c.

**V422. EDIBLE POD.** Dwarf Gray Sugar. Pods as well as peas are cooked, like snap beans. Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

**V426. EVERBEARING (BLISS).** A later sort that continues bearing for a long time, though most other mid-season kinds do also. Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

**V428. GRADUS.** Called also Early Telephone. Tall vines, large pods and peas. Does better on some soils than others. Pkt., 10c;  $\frac{1}{2}$  lb., 20c; lb., 35c.

**V432. LITTLE MARVEL.** Early; vine short; pods not large but always packed tight with peas of good quality. Good yielder. Pkt., 10c; 1-2 lb. 20c; lb. 35c.

**V434. STRATAGEM.** Good mid-season kind. Pkt., 10c;  $\frac{1}{2}$  lb., 18c; lb., 30c.

**V436. TALL TELEPHONE.** Very tall; pods very large. Pkt., 10c;  $\frac{1}{2}$  lb., 20c; lb., 35c.

**Culture Suggestions.** Peas grow and attain the stage just fine for "green peas" with so little care that they should be planted liberally. The plants store nitrogen in the soil for the crop to follow, and there is plenty of time to grow radishes, turnips, lettuce, beets, etc. after the peas have been used.

Bear this in mind. The smooth varieties, like Alaska and Ameer, may be planted very early, even in February if soil permits. They seldom, if ever, rot in the cold, wet ground. Because of this these kinds are valuable. They deliver the goods early. But the wrinkled kinds—Laxtonian, Blue Bantam, Dwarf Telephone—in fact, all the others in my list, are sweeter and should be planted fairly early. A long spell of cold, wet weather in early spring may cause the seed to rot, but this seldom happens. Your largest plantings should be of these wrinkled, sweet-er kinds.

Peas thrive best in the cooler early months of the season, and do not do very well from late plantings. Beans like hot weather but peas prefer it cooler. So plant liberally early in spring. Dwarf Telephone is later than Laxtonian and Blue Bantam, but it is best to plant it a few days to a week or so later than these, lest it come into bearing too soon to make an ideal succession.

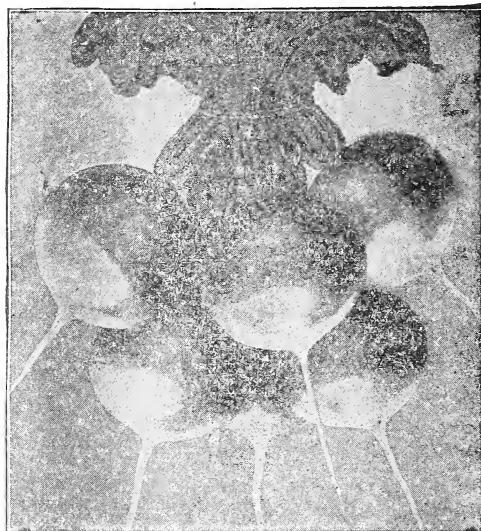
Peas do not need a great deal of water, if well cultivated from time they come up, until in bloom. Running the water along close of the rows is better than to use the hose. Too much sprinkling may cause mill-dew.

Sow rather thick, using a pound to about 125 feet of row, though thinner may be best if shy on moisture.

All PEAS prepaid at these prices.

For larger lots, see page 22.

## *SONG'S* Crisp Radishes for Home and Market



**Culture.** Radishes must grow quickly to be tender. Sow a few early—just take a chance on them—and then sow every few weeks all spring and summer, to have fresh, crisp radishes whenever wanted.

For larger lots, see page 22.

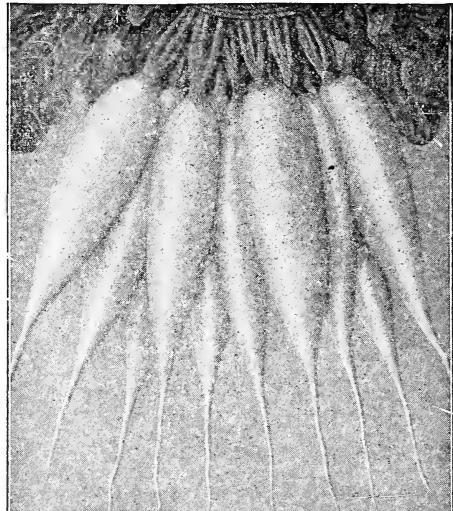
**V135. EARLY SCARLET TURNIP, WHITE TIE.** Quick growing variety, very attractive for bunching account rich red color, except bottom, which is white, as illustrated above. Large Pkt., 10c; oz., 15c.

**V137. GLASS, or CINCINNATI MARKET.** Corresponds to Icicle, but color is red. The best long red. Pkt., 5c; oz., 10c.

**V138. FRENCH BREAKFAST.** An old favorite of the half long type. Color red, shading to white at base. Soon gets pithy and should be sown often to provide supply crisp radishes. Pkt., 5c; oz., 10c.

**V140. WHITE STRASBURG.** Similar to Icicle but larger and later. Pkt., 5c; oz., 10c.

**V141. CRIMSON GIANT.** Here's a hummer! Round, bright red, growing quickly to bunching size, but will keep right on growing to large size without losing its crispness. I plant Crimson Giant and Icicle from early spring until September and we have fresh, crisp radishes all summer and until late in fall. Select seed. Large Pkt., 10c; oz., 15c.



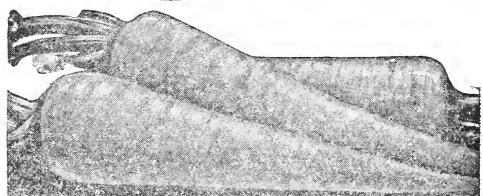
**V136. WHITE ICICLE.** Not in a thousand years could you think of a better name for this popular radish. The name just fits, Is one of the earliest long radishes, good for sowing every few weeks from early spring until September. My stock of this is very fine. Large Pkt., 10c; oz., 15c.

**V142. CHINESE ROSE (Winter).** Pink, oval or half long. Pkt., 5c; oz., 10c.

**V143. WHITE CHINESE (Winter).** Very large, mild and juicy. Extra fine. Pkt., 10c; oz., 15c.

For larger lots, see page 22.

## *SONG'S* Parsnips



**Culture.** Sow early in deep mellow soil, pressing soil after planting.

**V126. HOLLOW CROWN.** Large Pkt., 10c; oz., 15c.

## *SONG'S* Pumpkins

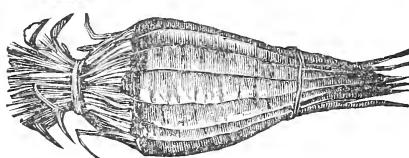
For Larger Lots see page 22.

**V132. SMALL SUGAR.** The good old yellow pie pumpkin. Pkt., 10c; oz., 15c.

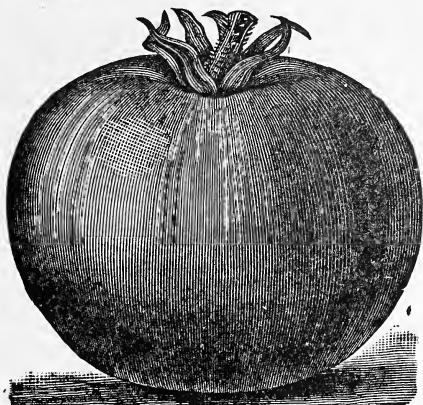
**V133. LARGE FIELD.** Pkt., 10c; oz., 15c.

**V134. KING OF MAMMOTHS.** Largest of all pumpkins, yet good for pies as well as for stock. Pkt., 10c; oz., 15c.

## *SONG'S* Vegetable Oyster



**V176.** Good substitute for oysters. Sow where may remain until late in fall, or may be left in ground and dug as needed in winter. Large Pkt., 10c; oz., 25c;  $\frac{1}{4}$  lb., 75c.

*LONG'S* Select Tomatoes

**Culture:** Sow the seed in boxes in the house or in hot bed 6 to 8 weeks before time to set out. Failure to germinate seed is often due to lack of heat. **Tomato seed must be kept warm** to start it. (Same with pepper seed.) If come up thick, thin them at once. "Damping off" is a common trouble and is due to plants being too thick, watered too much, and lacking enough fresh air. When plants have 4 leaves transplant to shallow boxes or cold frames. Gradually harden them off by exposing to outdoor air to get stalky, sturdy plants.

Set plants 3 to 4 feet apart in the garden, water moderately; cultivate well.

Except where noted, all **TOMATO SEED** at 5c for small pkt.; Long's special pkt., 10c.

**V154. EARLIANA.** Is somewhat small, but earliest of all. Select seed.  $\frac{1}{2}$  oz., 25c; oz., 40c;  $\frac{1}{4}$  lb., \$1; lb., \$3.50.

**V159. NEW BURBANK.** Another good, early tomato. Pkt., 10c;  $\frac{1}{2}$  oz., 40c; oz., 75c.

No Tomato Plants By Mail.

*LONG'S* Early Red Head

**V160.** Red Head is a "Red that is Red," real early tomato of medium size, almost round, solid and smooth and of good flavor. Sets heavy, and keeps right on bearing during the whole season. As I've often remarked, some vines often loaded that it looks like a bucket of tomatoes had been poured around the plant. Pkt., 10c;  $\frac{1}{2}$  oz., 40c; oz., 75c;  $\frac{1}{4}$  lb., \$2.00.

**V155. BONNY BEST.** Bright scarlet. Few days later than Earliana, but larger and smoother. Good for early medium and late.  $\frac{1}{2}$  oz., 25c; oz., 40c;  $\frac{1}{4}$  lb., \$1; 40c;  $\frac{1}{4}$  lb., \$1; lb., \$3.50.

**V156. CHALK'S EARLY JEWELL.** Deeper red than Earliana, larger and very good.  $\frac{1}{2}$  oz., 25c; oz., 40c;  $\frac{1}{4}$  lb., \$1.00; lb., \$3.50.

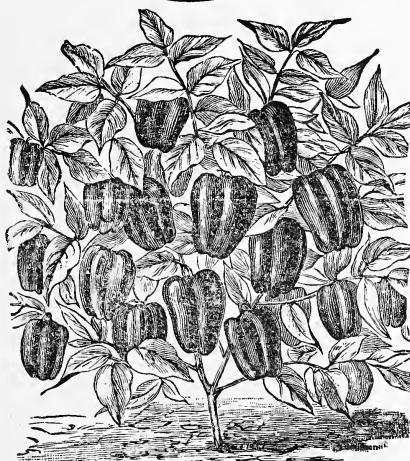
**V157. LIVINGSTON'S BEAUTY.** Medium early, smooth, prolific, purplish red. Standard main crop variety.  $\frac{1}{2}$  oz., 25c; oz., 40c;  $\frac{1}{4}$  lb., \$1; lb., \$3.50.

**V162. PONDEROSA.** Largest of all tomatoes, sometimes rough, few seeds. Pkt., 10c;  $\frac{1}{2}$  oz., 25c; oz., 45c;  $\frac{1}{4}$  lb., \$1.20.

**V163. NEW JOHN BAER.** Similar to Chalk's Jewell. Highly recommended by our Agricultural College.  $\frac{1}{2}$  oz., 25c; oz., 40c; 1-4 lb., \$1; lb., \$3.50.

**V164. YELLOW PEAR.** Small pear-shaped tomato for preserving.  $\frac{1}{2}$  oz., 25c; oz., 45c;  $\frac{1}{4}$  lb., \$1; lb., \$3.50.

**V165. GROUND CHERRY.** Also called Strawberry, or Husk Tomato. Each fruit in husk. Sweet and fine for preserving or pies.  $\frac{1}{2}$  oz., 30c; oz., 50c.

*LONG'S* Peppers—Full of Life and "Pep"

**Culture:** Peppers hard to germinate. Do not blame yourself, your hotbed or the seed if you fail to make them come through. Start them indoors or in hotbed. Soil must be very warm. Transplant after frost.

**V127. RUBY KING.** Standard sort large sweet pepper. Pkt., 5c;  $\frac{1}{2}$  oz., 25c; oz., 45c.

**V128. CHINESE GIANT.** Larger than Ruby King; mild. Pkt., 10c;  $\frac{1}{2}$  oz., 35c; oz., 65c.

**V129. LONG RED CAYENNE.** Pkt., 5c;  $\frac{1}{2}$  oz., 20c; oz., 40c. "Full of pep."

**V129½. RED CHILLI.** Small, red, very hot. Pkt., 10c;  $\frac{1}{2}$  oz., 25c; oz., 45c.

**V130. PERFECTION PIMENTO.** Sweetest and mildest of all peppers. Flesh very thick. Pkt., 10c;  $\frac{1}{2}$  oz., 30c; oz., 60c.

**V131.** **NEAPOLITAN.** Earliest of all red mild peppers; fruit grow upright. Pkt., 5c;  $\frac{1}{2}$  oz., 20c; oz., 40c.

**V131½. NEW ROYAL KING.** Similar to Ruby King but larger and flesh much thicker. Superior to Ruby King. Pkt., 10c;  $\frac{1}{2}$  oz., 30c; oz., 50c.

No Pepper Plants by Mail

*LONG'S* Squash

All SQUASH: Large Pkt., 10c; oz., 15c.

(For larger lots see page 22)

**V149. TRUE HUBBARD.** The good old green, solid, hard shell, long keeping, fine flavored kind that melts in your mouth.

**V150. SWEET POTATO.** (Pike's Peak or Sibley.) Large oval squash, tapering at blossom end. Skin olive-green. When baked, resembles sweet potatoes.

**V151. DELICIOUS.** Varies in form and color, but always good.

**V152. WHITE BUSH SCALLOPED.** For summer use.

**V153. GIANT CROOKNECKED.** Best of summer squashes.

**V154. BANANA.** As name implies, this is a long squash. When baked, the thick golden meat is indeed delicious.

**V155. New Table Queen or Acorn.** Small but very prolific. Shape suggest name, **Acorn.** Size, 5 to 6 in. long; 4 to 5 in. across. Flavor splendid. Table Queen has thin, dark green shell. Can be baked or boiled in 20 minutes. Served in halves it is most attractive and delicious. Early, yet stores well. Best of all, is far less subject to insect pests than other squashes. Pkt., 10c; oz., 20c; 1-4 lb., 60c.

*LONG'S* Spinach

**V145. BLOOMSDALE, SAVOY LEAVED.** One of the best early varieties. Pkt., 5c; oz., 10c.

**V146. MONSTROUS - LEAVED VIROFLAY.** Vigorous growing early kind with large, thick dark green leaves. Pkt., 5c; oz., 10c.

**V148. BOULDER "TREE" SPINACH.** Seed so light that a little goes a long ways. May be cut as other spinach, but if allowed to

*LONG'S* Turnips

**Culture.** Turnips do best in rich, loose soil, but thrive under less favorable conditions. May be sown from early spring until August. For main crop for winter use, sow in July.

**V169. Early Snowball.** Small, pure white, round, extra early; very tender and sweet. Ideal early table turnip.

**V170. EXTRA EARLY PURPLE TOP MILAN.** The earliest of all turnips. Medium size. Somewhat flat.

All at: Pkt., 5c; Large Pkt., 10c; Oz., 15c.

**V171. EXTRA EARLY WHITE MILAN.** Similar to V170, but pure white.

**V172. PURPLE TOP STRAP LEAVED.** Good for early or main late crop. Grows to large size.

**V173. WHITE EGG.** Quick growing, egg-shaped, pure white variety, for spring or summer growing. Good size.

**V174. PURPLE TOP GLOBE.** Similar to White Egg in shape but with purple top. Superior to the old Purple Top Strap, which is flat.

**V174½. AMBER GLOBE.** Another good globe about same shape as White Egg, but color nearly yellow. Seems to do especially well in the mountains.

For larger lots see page 22.

*LONG'S* Best Rutabaga

**V175. AM. PURPLE TOP.** Color purple above and yellow under the ground. Flesh yellow and solid; few leaves and small neck. Pkt., 5c; large pkt., 10c; oz., 15c.

grow it will attain a height of 6 feet. You can pick the leaves off at any stage of growth and will find them mild and tender. Pkt., 5c; oz., 20c; 1/4 lb., 50c.

## "King of Denmark" Spinach

A new variety from Denmark that has the good qualities of such sorts as Bloomsdale and Viroflay, being similar in growth and appearance, but far superior in that it does not run to seed so quickly. Makes a quick growth of dark green leaves, large and attractively crumpled. Pkt., 5c; oz., 10c; 1-4 lb., 25c; 1b., 60c; 5 lbs. for \$2.50.

*LONG'S* Leeks

**788. BROAD LONDON, or LARGE AMERICAN FLAG.** This is a strong-growing variety, producing large thick stems of sweet flavor when properly blanched. Pkt., 5c; oz., 25c; 1/4 lb., 75c; 1b., \$2.25.

# *Long's* Giant Washington Asparagus (Improved Strain)

Here's good news! Gain a year on asparagus!

Not only that, but you can have larger, better asparagus every year, after getting your new bed started.

This you can do by planting selected stock of the improved Washington asparagus. Plant seed or roots, but you can begin cutting a year sooner by planting the roots.

Now doubtless you have heard of this Washington asparagus, for it has come to the front rapidly during the last few seasons. There's no question about its being the largest and best.

The only question is about getting the true Washington stock, and still more important, getting good selection of this strain.

To go into all the details of the origin, improvement and selection of the various stocks or strains of Washington asparagus would be too long a story, even for Long, at this time.

The main point is that when I decided to secure seed and roots of this for my customers I said, as I've often said at such times, "The best is good enough for me—and my customers."

So I paid double the usual price for my seed, for selling, and for growing my plants or roots. An asparagus bed, rightly planted, should last 20 years, so the best is not only "good enough" but highly important to start with.

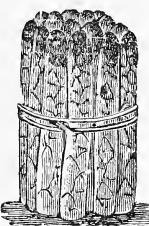
**Improved Giant Washington** asparagus is dark green in color, with heavy undertone. The shoots are straight, large and luscious. Tips tight and firm and do not open out or begin to branch until well out of the ground, making ideal green asparagus for home use or market.

This variety is the only one that is practically rust proof, and it is such a rank and rapid grower that you can cut the tender shoots the next season after planting, instead of waiting two years. The first cutting should be for a few weeks only; after that you can't hurt the roots by cutting for a long period.

Asparagus demands good rich soil to do its best. However, if soil is not rich at time of planting, it can be enriched later on by spading in fertilizer between the rows. Don't dig deep trench, and don't fertilize heavily under the roots, for they grow out, more horizontally than down, and will catch nourishment applied above the roots. Set roots 10 to 12 inches apart in row, and rows 20 to 36 inches apart, according to space you can give to your asparagus bed. Spread roots out flat. Set so crown is 3 or 4 inches below ground level.

**Now regarding roots.** You want good roots, of the true improved Giant Washington strain, but take a tip from the largest planters and experienced growers as to what roots are best to set out.

There's a very common notion that if a one-year root is good a two-year root is better, whereas just the reverse is true. Nothing is better than a strong one-year-old root. This also would be too "Long" a story to tell here, but Government experts and



practical gardeners have solved this problem for you and I'm simply handing you the answer.

These roots are grown for me, from seed I supplied, by an experienced, successful gardener. Seed sown thin and special care taken to produce an ideal strong root for setting out. Moreover, after digging, the roots are graded or selected. I recommend the selected roots and offer no other kind this year. They are good and strong.

**Price for selected one-year improved Giant Washington roots:** Doz., 50c; 3 doz., \$1.00; 100 for \$2.50; prepaid within 5th zone.

Improved Giant Washington Seed: Pkt., 10c; oz., 20c;  $\frac{1}{4}$  lb., 75c.

## Rhubarb, or Pie Plant

You can "grow your own pies" by starting the plants from seed, or getting the roots, the latter method gaining time. Sow the seed in spring, and transplant where wanted the following spring. Pkt., 5c; oz., 20c.

**RHUBARB ROOTS.** The favorite "Strawberry" variety. Each, 25c; 3 for 60c; 6 for \$1.00; prepaid.

## Scarlet Runner Bean

Very rapid climber. One customer says it must have been Scarlet Runner bean which grew so fast and enabled Jack the Giant Killer to make his get-away. Blossoms bright red. Beans good to eat, as snap beans. Pkt., 10c;  $\frac{1}{2}$  lb., 25c; lb., 40c.

## *Long's* Kohl-Rabi

**WHITE VIENNA.** The best. Pkt., 10c; oz., 25c. or roots. An asparagus bed, rightly planted.

## Kale, or Borecole

Used for greens. Pkt., 5c; oz., 15c.

## Okra, or Gumbo

The green pods are used in soups, to which they impart a rich flavor. Sow in open garden but not until ground is warm. Thin to 10 inches. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 40c.

## Mammoth Sunflower

The well-known Giant Russian Sunflower that makes such a tremendous growth and bears a lot of good seed; good for poultry food. The whole plants are now used a great deal for silage. Pkt., 5c; lb., 25c; prepaid. 5 lbs. at 20c; 10 lbs. at 17c; prepaid.

## Endive

One of the best and most wholesome salads for fall and early winter use. Also used in soups. Sow in June or July in rich ground. Thin or transplant to 6 to 8 inches apart. A few weeks before wanted for the table, tie up the bunches to blanch. Or, may be blanched by throwing brush or some such covering over the plants.

**WHITE CURLED.** The variety most used. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 35c.

**BROAD LEAVED.** Plain, broad leaves. Pkt., 5c; oz., 15c;  $\frac{1}{4}$  lb., 35c.

## *Long's* Herbs—All 10c Pkt.

\*Caraway

\*Fennel

\*Catnip

\*Lavender

Coriander

Marjoram

Dill—Oz., 15c

\*Rosemary

\*Sage— $\frac{1}{2}$  Oz., 30c

Savory

## *LONG'S* Larger Lots at Lower Prices

Everything except peas, beans and sweet corn is priced prepaid parcel post. Bags and envelopes weighed in, beyond 4th zone. In ordering peas, beans and sweet corn, add for each pound: 1c for 2nd zone; 2c for 3rd; 4c for 4th; 6c for 5th; 8c for 6th; 10c for 7th; 12c for 8th. I will pay whatever additional postage may be required above these amounts.

**Notice.** Prices for 5 lbs., 10 lbs., etc., are per pound, not 5 lbs. for the price intended for one pound. Last year several ordered 5 lbs. Laxtonian peas for 29c, plus postage, that is, they allowed only 29c for the whole 5 pounds.

**BEANS:** (Postage extra. See above.)

Brittle Wax, very scarce, 5 lbs. at 29c lb.; 10 lbs. at 27c lb., plus postage.

Stringless Green Pod, Ky. Wonder, Henderson Lima, Cream Butter, 5 lbs. at 25c; 10 lbs. at 23c per pound, plus postage. See rates above.

Dwarf Black Wax and Wardwell's: 5 lbs. at 22c; 10 lbs. at 20c, per pound, plus postage.

**BEETS**

All Beets:  $\frac{1}{4}$  lb., 35c; lb., 90c; 5 lbs., at 80c.

**CABBAGE**

Copenhagen Market, originator's stock:  $\frac{1}{4}$  lb., 80c; lb., \$2.20; 5 lbs. at \$2.00 per lb.

Danish Roundhead, select -Danish grown seed;  $\frac{1}{4}$  lb., 75c; lb., \$1.90; 5 lbs. at \$1.80 per pound.

All other Cabbage:  $\frac{1}{4}$  lb., 65c; lb., \$1.60; 5 lbs. at \$1.50 per pound.

**CARROT**

All Carrots:  $\frac{1}{4}$  lb., 40c; lb., \$1.00; 5 lbs. at 80c per pound.

**SWEET CORN:** (Postage extra. See above.)

All varieties: 5 lbs. at 22c; 10 lbs. at 20c; per pound, plus postage.

**POP CORN:** (Postage extra).

Japanese Rice: 5 lbs. at 24c; 10 lbs. at 22c. Others same price as Sweet Corn. Postage extra.

**CUCUMBER**

All except V67:  $\frac{1}{4}$  lb., 40c; lb., \$1.10; 5 lbs. at \$1.00

**LETUCE**

Los Angeles: See page 10

All other Lettuce:  $\frac{1}{4}$  lb., 50c; lb., \$1.40; 5 lbs. at \$1.30

**MUSK MELON**

All but V91 and V91 $\frac{1}{2}$  at,  $\frac{1}{4}$  lb., 40c; lb., \$1.10; 5 lbs. at \$1.00 per pound

**WATER MELON**

All varieties:  $\frac{1}{4}$  lb., 35c; lb., 90c; 5 lbs. at 80c; 10 lbs. at 70c, per pound.

**ONION.** (Write for prices on larger lots)

Brown Australian:  $\frac{1}{4}$  lb., 65c; lb., \$2.40; Red Wethersfield,  $\frac{1}{4}$  lb., 75c; lb., \$2.80.

Barletta, Prizetaker:  $\frac{1}{4}$  lb., 80c; lb., \$3.00.

So. Yellow Globe, So. Red Globe, Yellow Globe Danvers:  $\frac{1}{4}$  lb., \$1.00; lb., \$3.80.

Silverskin, So. White Globe:  $\frac{1}{4}$  lb., \$1.10; lb., \$4.00.

Imp. Mt. Danvers:  $\frac{1}{4}$  lb., \$1.20; lb., \$4.40.

**PARSNIP**

Hollow Crown:  $\frac{1}{4}$  lb., 35c; lb. 80c.

**PEAS:** (Postage extra. See above.)

Laxtonian, Blue Bantam, Dwarf Telephone: 5 lbs. at 27c; 10 lbs. at 26c, per pound, plus postage.

Gradus, Tall Telephone, Little Marvel: 5 lbs. at 25c; 10 lbs. at 23c per pound, plus postage.

Alaska, Ameer, Edible Pod, Everbearing, 5 lbs. at 23c; 10 lbs. at 21c, per pound, plus postage.

**PUMPKIN**

Sugar:  $\frac{1}{4}$  lb., 35c; lb., 85c; 5 lbs. at 75c.

Field:  $\frac{1}{4}$  lb., 30c; lb., 75c; 5 lbs. at 65c.

King of Mam.:  $\frac{1}{4}$  lb., 40c; lb., \$1.20.

**RADISH**

Crimson Giant, Early Scarlet Turnip, White Tip (Sparkler Strain) and Icicle:  $\frac{1}{4}$  lb., 40c; lb., \$1.00; 5 lbs. at 90c.

All other kinds:  $\frac{1}{4}$  lb., 35c; lb., 90c.

**RUTABAGA**

Am. Purple Top:  $\frac{1}{4}$  lb., 35c; lb., 90c; 5 lbs. at 80c.

**SPINACH**

Bloomsdale and Viroflay:  $\frac{1}{4}$  lb., 25c; lb., 45c; 5 lbs. at 40c; 10 lbs. at 35c. Others as priced.

**SQUASH**

All except V155 at,  $\frac{1}{4}$  lb., 40c; lb., \$1.00; 5 lbs. at 90c per pound.

**TURNIP**

Purple Top Strap and Amber Globe:  $\frac{1}{4}$  lb., 30c; lb., 80c; 5 lbs. at 70c per pound.

All other Turnips:  $\frac{1}{4}$  lb., 35c; lb., 90c; 5 lbs. at 80c per pound.

## *LONG'S* Special Stock Giant Pascal Celery Seed

For 12 years, a Boulder celery grower has been selecting and re-selecting his strain of Giant Pascal celery seed, to get it as uniform as possible in growth and freedom from strings and pithy stalks. Pkt., 25c;  $\frac{1}{2}$  oz., 40c; oz., 75c.

## Minn. No. 13 Seed Corn

Write to J. A. Gilfillan, Route 3, Fort Lupton, Colo., for prices on his dry land grown "Pioneer" strain of Minn. No. 13 seed corn.

## No Field Seeds

We do not handle field seeds, but specialize on seeds, plants, bulbs and roots for gardens and lawns.

## "Safety-First" Lawn Grass Seed—Page 66

LONG'S Zinnias—Gigantic, Dazzling, Beautiful!

These zinnias are the largest that have been originated up to this time. They come from a famous zinnia specialist in California.

There is no sharp distinction between the two types, the Colossal and the Dahlia-Flowered, but the latter is an improvement on the wonderful Colossal in that the flowers average larger in diameter and are much deeper having many more petals.

Long's Colossal Zinnias

Z1. Snow White.	Z6. Golden Yellow
Z2. Apricot-Yellow	Z7. Rich Orange.
Z3. Pink.	Z8. Purple.
Z4. Deep Primrose.	Z9. Salmon.
Z5. Crimson.	Z10. Scarlet.

Price for any color Colossal: Pkt., 10c;  $\frac{1}{4}$  oz., 30c; oz., \$1.00.

Long's Dahlia Flowered Zinnias

Z13. EXQUISITE. Light rose, with center a deep rose. Pkt., 15c;  $\frac{1}{4}$  oz., 80c.

Z14. GOLDEN STATE. Rich orange-yellow. Pkt., 20c;  $\frac{1}{4}$  oz., 80c.

Z15. CRIMSON MONARCH. By far the largest and best of the red shades. Pkt., 15c;  $\frac{1}{4}$  oz., 80c.

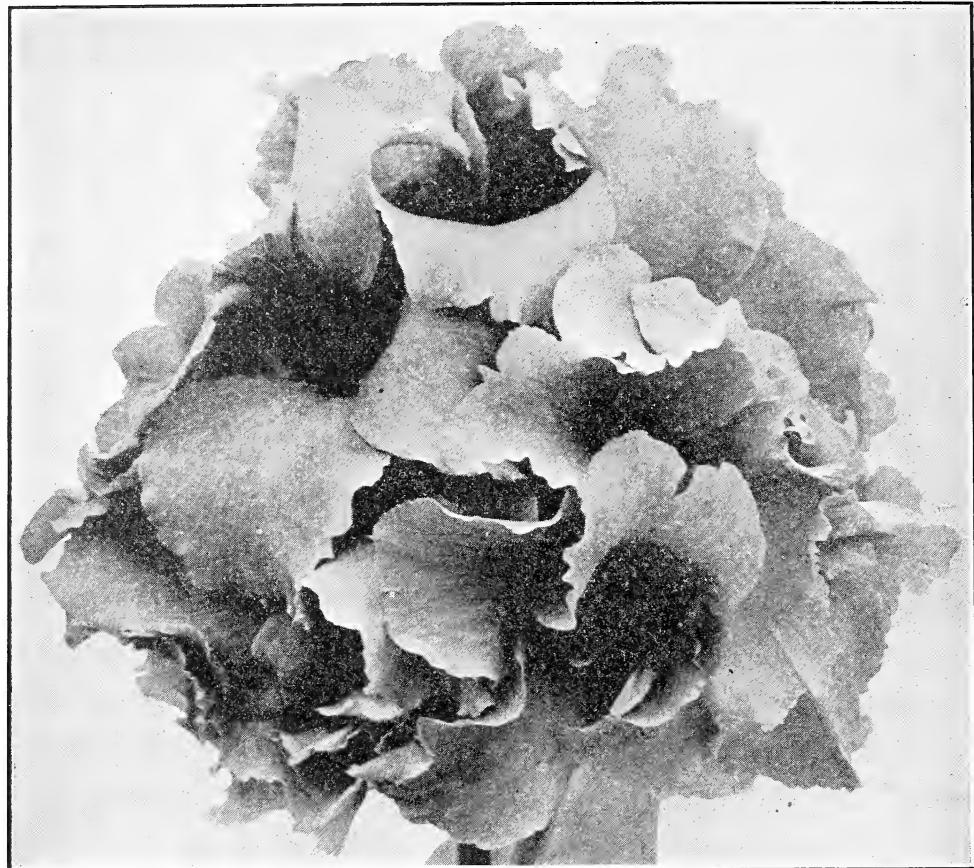
Z16. DREAM. Deep lavender. Pkt., 15c;  $\frac{1}{4}$  oz., 80c.

Z18. BUTTERCUP. Immense deep yellow. Pkt., 15c;  $\frac{1}{4}$  oz., 80c.

Z19. POLAR BEAR. White very large. Pkt. 15c;  $\frac{1}{4}$  oz., 80c.

LONG'S Mastodon Mixed Zinnias for 1925

A marvelous "All-In-One" mixture of my gigantic Dahlia-Flowered strain and choicest Colossal in giant size and rare colors. Bound to make a wonderful show from midsummer to killing frost. Pkt., 10c;  $\frac{1}{4}$  oz., 50c; oz., \$1.50. ("How to Grow Zinnias"—See Page 51.)



## New Watermelon-Pink Canna, "Mrs. Pierre S. Du Pont"

Unquestionably the finest pink canna yet introduced. The color, a vivid watermelon-pink, is exceedingly rich and attractive.

Although the single flowers are very large and form an immense head, each petal is so firm that the blooms always open perfectly. **The wavy or crinkled edge to the petals is a new departure in cannas.**

The stems are strong and upright, holding the flower heads well above the healthy, green foliage. The queen of all pink cannas. About 4 feet high. Introduced several years ago at \$10.00 each. I grew a nice lot of these delightful canna last season and can supply good strong roots at \$1.50 each; 3 for \$4.00, prepaid.

## Charming New Canna, "Victory", Glowing Apricot

This new canna provides another color in the apricot shades that have become so popular. The throat of the flower is glowing apricot, which shades to a suffusion of pinkish buff or summer sunset tints over the petals, finally edging off to a distinct border of maize-yellow.

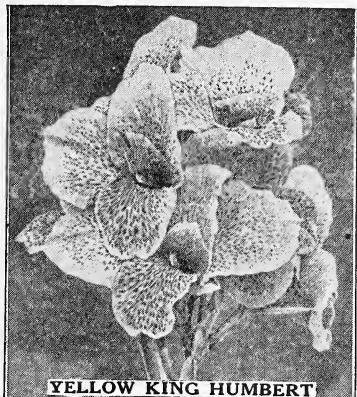
Flowers are medium in size and so firm in texture that they can be used for cutting and last a long time in water. About three feet high. Strong roots. Each 60c; 3 for \$1.40; 10 for \$4.00, prepaid.

## Two Fire Red Giant Orchid-Flowering Cannas

**KING HUMBERT.** Not new, but holds its place among the favorite giant reds, with bronze foliage. Blossoms very large. Great favorite. See next page.

**THE PRESIDENT.** One of the newer cannas that is really wonderful. Gigantic blossoms of the "reddest red" imaginable. Brighter than King Humbert. See page 25.

## Cannas (Continued)



YELLOW KING HUMBERT

Handsome bedding plants, both foliage and flower of pleasing appearance. **They bloom and bloom and bloom...** The varieties I list are greatly improved kinds that will surprise and delight you. Heights given are approximate. Strong roots.

**Class A. King Humbert.** Bronze foliage; scarlet flowers of immense size; 5 feet.

**Class B. Yellow King Humbert.** Green foliage; very large blossoms of deep, rich yellow, softly spotted with red; 4 feet.

**Class C. The President.** Glossy green foliage; flowers vivid red. Very showy. 4 ft.

**Class D. City of Portland.** Green foliage; soft pink blossoms. 4 feet.

**Class E. Eureka.** Extra fine white. Combines well with any other color. 4 feet.

Any of the above Giant Orchid-Flowering Cannas, your selection, alike or assorted, labeled. Each, 20c; 6 for \$1.00, prepaid.

**MIXED GIANT CANNAS.** Our selection, none labeled: 3 for 50c; 8 for \$1.00, prepaid.



Iris Roots

Can supply only these 6 irises this spring. Others all planted out. Look for big list, many new kinds, in my next fall catalogue.

**AUREA.** Chrome yellow. 24c.

**KOCHI.** Early purple. 24c.

**ISOLENE.** Purplish pink. 42c.

**MRS. NEWBRONNER.** Daffodil yellow. 24c.  
**PALLIDA DALMATICA.** Light blue. 24c.  
**PROSPER LAUGIER.** Bronze. 30c.

If order 6 or more iris, alike or different, deduct one-sixth from total amount of iris order.

## Rocky Mountain Columbine

The state flower of Colorado. Very beautiful, hardy perennial; sepals blue; petals white. Prefers partial shade. Thrives in any state. Starts growth early in spring. Blooms here last of May, almost always in bloom Decoration Day. Order early; plant early.

**BLOOMING SIZE ROOTS.** 2 for 50c; 5 for \$1.00; 12 for \$2.00, prepaid.



## Chinese Wool Flower

Flowers resemble a ball of wool. Plants branch freely and are covered with blooms. Very striking for garden display. **Can be dried for winter bouquets.** Sow in garden about May 1st or start indoors.

**F026** Crimson. **F027** Rose-Pink. **F028** Yellow. **F029** White. **F030** Mixed. Price any color or mixed: Pkt., 10c.

## LONG'S Superb Petunias Giants of California

The largest often measure 4 to 4½ inches across. And such wonderful colors and markings! Then too, some are delightfully ruffled and frilled. Produces very, very little seed, making the seed as precious as gold dust. Pkt., 25c.

## Two Extra Fine Petunias

**F024. Rosy Morn.** A gay and artistic petunia for beds and borders. Color soft rose-pink with light throat. Plants set a foot apart in good soil will fill all the space with perfect mass of bloom, beginning about 60 days from sowing and never letting up until frosts. Pkt., 10c.

**F025. Violacea.** Similar in bushy habit of growth to Rosy Morn, but a beautiful deep violet color. Very rare. Pkt., 10c.

# Some Extra Good Roots, Plants and Seeds for 1926

## Double Bachelor Button

Far superior to the common single strain. Fine for cutting. Splendid colors. Will please you.

**F01** White. **F01** Blue. **F02** Rose. **F03** Mixed. Any color or mixed: Pkt., 10c;  $\frac{1}{4}$  oz., 45c.

## Geraniums from Seed

Our sales of geranium seed increase from year to year. The 15c packet (see page 29) is splendid, but Grand Zonale is still better. Geraniums are easily grown from seed. Sow in the garden or start indoors. Take up and pot the plants in fall.

**F033. Grand Zonale.** Grown by Mrs. Shepherd and probably the finest geranium seed ever offered. Mixed colors—scarlet, crimson, rose, pink, salmon, blush, white, variegated. Pkt., 25c.

## Sea Lavender (Statice)

**F017.** A companion for the better known and popular Gypsophila Paniculata (Baby's Breath). The latter is snow white, but Statice is blue. Like Gypsophila, it is used for combining with other flowers to give them a light, airy effect. Blooms second year from seed. Pkt., 10c.

**Note:** Before sowing statice seed, rub it hard in the hand to remove husk. Will germinate better. (Rather hard to germinate anyhow).

**Statice Plants.** 2 for 50c; 5 for \$1.00; 11 for \$2.00; prepaid.

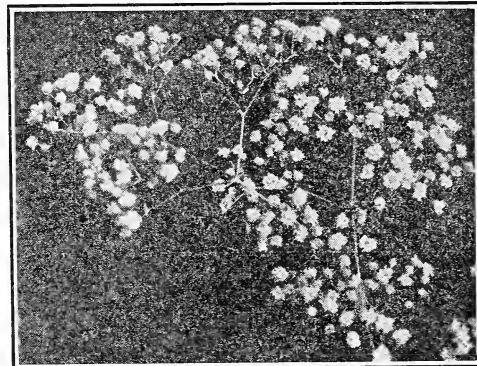
**Notice:** Statice makes very slow growth at first, and you may think some plants are not going to live and thrive. But care for them, and later on they will take a start and grow much faster.

## Giant African Marigolds

These marigolds belong to the tall growing, double "pin-cushion" class of the popular marigold. My seed was grown by a specialist, who has bred these two colors up the nearest to perfection that has so far been attained. Most of them come double, though a few come single, but of unusual shape, so that some admirers like the single even more than the double. Plants grow about 3 feet high from seed sown outdoors after ground is warm. Easily transplanted. Should be thinned to 12 inches in good ground, for they make big bushes. They bloom and bloom from midsummer to hard frosts.

**F05. Orange Prince.** A beauty. Deep golden orange. Immense blossoms. Pkt., 10c.

**F06. Lemon Queen.** Equal to Orange Prince, but a soft lemon yellow, making a fine contrast. Pkt., 10c.



## New Double Gypsophila

**F049.** The single white perennial Gypsophila (Baby's Breath) described on page 29, is indeed dainty, charming and valuable for combining with other flowers. It will always have a place or use of its own.

But a double form of Gypsophila is now obtainable, and is taking flower lovers by storm. It is white and also perennial. Once established the plants increase in size for several years. It blooms the second year from seed (sometimes a little the first year).

Not all come double however. The double form has not yet become fixed. It is safe to say that one-fourth the plants from this seed will produce double flowers—maybe 50 per cent. But the remaining plants produce dainty single blossoms. If you desire all double flowering plants you can pull out the singles the second year, or mark the double ones and transplant them in another location by themselves. They transplant easily. This double seed is much more expensive than the single. Sold in packets only. Pkt., 25c; 5 pkts., \$1.00.

The roots of this double Gypsophila that I have for you this season are field grown roots, mixed sizes, that will be sure to bloom nicely next summer, if given any reasonable show whatever. Price: 3 for 50c; 7 for \$1.00; 15 for \$2.00 prepaid.

To be sure of getting at least one double flowering plant you should order 7 or more roots. You may get no doubles in just 3 plants. (One good double root is worth \$1.00, so you're getting these roots cheap.)

## Hardy Perennial Blue Salvia

**F051. SALVIA AZUREA.** Also called "Heavenly Blue Flowering Sage." Grows 3 to 4 feet high; stately willow-like growth; produces spikes of pretty sky blue flowers in great profusion. Will bloom first season from seed sown early outdoors or started inside and set out later in spring. Lives for years. Can be transplanted in early spring without harm.

## Golden Glow Roots

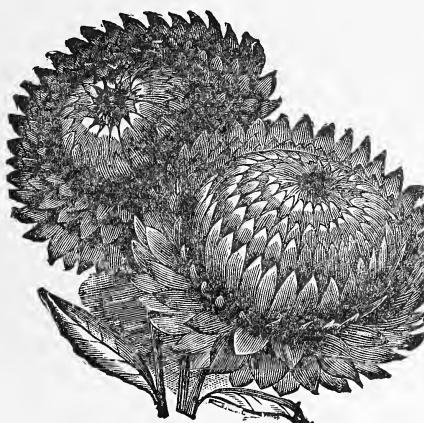
Blooms in August and September. Pkt. 15c. Strong roots, 25c; 5 for \$1.00; prepaid.



## FINE NEW CALIFORNIA POPPY

### "Copper Bowl"

**F035.** The rarest and richest color you can imagine in this shade of the popular California poppy. The name describes it. Pkt., 15c.

**LONG'S Tried and True Flower Seeds****LONG'S Everlasting Flower**

Very ornamental in garden, easily grown from seed sown outdoors. Particularly valuable for winter decoration of vases and everlasting bouquets. Will really keep for years. May be washed with soap and water to brighten up. An old-fashioned flower that is "coming back" strong now.

**Important.** Cut the flowers when partly open just as shown in this picture. Don't put them in water but hang them up dry in dark. Place also some on shelf in dark closet, so blossoms and part of stem hang over edge of shelf. This gives curve and charm to the stems when placed in vase.

**Golden Globe.** Large, golden yellow.

**Silver Globe.** Chaste silvery-white.

**Rose-Carmine.** Shades of rose.

**"Christmas Red."** Very popular for Christmas decorations. Some florists and gardeners make a bunch of money selling this at Christmas time.

**All Kinds Mixed.** These and other colors all in one mixture.

**Prices:** Any color, or all mixed: Pkt., 10c; 3 for 25c.

**LONG'S Scotch Marigolds**

**(Calendula.)** Also called Pot Marigold. Grows readily from seed planted outdoors. May also be grown in pots indoors. It blooms continuously if kept picked.

**Orange King.** Florists' strain. Enormous orange flowers, perfectly double.

**Lemon Queen.** Like Orange King but clear lemon-yellow. Double.

**Nankin.** Large double cream flowers slightly flushed apricot. Unique.

**Prices:** Any these three fine kinds: Pkt., 10c; 3 for 25c.

**F13. MIXED CALENDULA.** Pkt., 5c;  $\frac{1}{2}$  oz., 20c.

**Annual Mallow (Lavatera)**

**F015.** A showy annual, about 2 feet high, producing large cup shaped shrimp-pink flowers. Sow in May and thin to 10 inches. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

**Delphinium, Gold Medal Hybrids**

**F013.** A perennial, blooming second year from seed, known also as the Hardy Larkspur. The plants are of vigorous habit, with large flowers on spikes two feet long, when well grown. Colors run from pale lavender to deep blue. Pkt., 25c.

**Gold Medal Delphinium Plants**

Well rooted plants that will give very satisfactory blooms this season and grow larger and stronger from year to year. 3 for 50c; 8 for \$1.00.

**New California Poppies****"Persian Rug" Mixture**

Mr. Walter, the originator, says: "When all these colors are in bloom—red, chrome, pink, copper-red, claret, purple,—it makes you think of a beautiful Persian rug."

**F09.** "Persian Rug" Mixture. Pkt., 10c;  $\frac{1}{4}$  oz., 50c.

**Double Annual Chrysanthemum**

**F011.** Not the large kind grown in greenhouses and so much in evidence at football games, but a smaller flowered variety that blooms in the open garden from seed sown in spring. Nice for garden display and good for cutting. Most of the flowers come double. Mixed colors. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

**Japanese Morning Glory**

**F72.** Colors run from white through all shades of blue and red; from palest pink to darkest reds and purples. Many flowers streaked, mottled and bordered. The leaves are also very ornamental, ivy-like and heart-shaped, green and marbled. Climbers. Plant in warm location. Pkt., 10c; oz., 30c.

**LONG'S Ageratum (Floss Flower)**

Dwarf, compact plants, fine for borders, edgings or pots.

**F1, Blue; F2, White, F3, Choice Mixed.** Price for any kind: Pkt., 5c;  $\frac{1}{4}$  oz., 25c.

**LONG'S Sweet Alyssum**

Exceedingly popular border plant, useful in many ways in any garden. Puts the "finishing touch" to beds, walks, etc. Snow white; comes quickly from seed, and blooms continuously.

**F4. Little Dorrit.** Similar to Little Gem but still more compact and a finer variety. Pkt., 10c;  $\frac{1}{4}$  oz., 25c;  $\frac{1}{2}$  oz., 40c.

**F4½. LILAC ALYSSUM.** Same as white, but lilac color. Pkt., 10c

**LONG'S Amaranthus**

Graceful plants with ornamental foliage producing a striking effect as a background or centerpiece

**F5. All Kinds, Mixed.** Pkt., 5c;  $\frac{1}{2}$  oz., 15c.

**LONG'S Antirrhinum (Snapdragon)**

**F7. LONG'S SPECIAL MIXTURE.** Largest and finest kinds in rare variety of colors, for cut flowers or garden display. Pkt., 10c.

**Separate Colors Snapdragon.** White, Pink, Yellow, Red. Pkt., 10c.



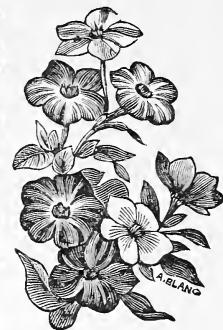
Alyssum



Snap Dragon



Canterbury Bell



Four o'Clock

### *LONG'S* Bachelor's Button

**DOUBLE BACHELOR BUTTON.** Delightfully superior to the old single type. **F01**  $\frac{1}{2}$  White. **F01** Blue, **F02** Rose, **F03** Mixed—all at 10c pkt.

**F8. SINGLE MIXED.** Pkt., 5c;  $\frac{1}{2}$  oz., 20c;

### *LONG'S* Balloon Vine

**F9.** Hardy annual climber, producing white flowers and seed vessels that look like small balloons. Good for screens. Seeds hard and should be soaked 24 hours. Pkt., 5c;  $\frac{1}{2}$  oz., 15c.

### *LONG'S* Balsam (Lady Slipper)

Grows quickly from seed, producing large brilliant flowers. Also called "Touch-Me-Not." Great favorite with children.

**F11. DOUBLE MIXED.** Pkt. 5c;  $\frac{1}{4}$  oz., 25c.

### *LONG'S* Calliopsis

**F14.** Bush plants 2 feet high covered with showy flowers. Pkt., 5c;  $\frac{1}{2}$  oz., 15c.

### **CALIFORNIA POPPY (See Eschscholtzia)**

### *LONG'S* Canary Bird Flower

**F15.** Rapid growing climber, 10 feet. Flowers canary yellow, and resembling a canary bird. Fine for porches, etc. Soak 24 hours. Pkt., 10c;  $\frac{1}{2}$  oz., 20c.

### *LONG'S* Candytuft

**F17. PURE WHITE; F18 FINE MIXED.** Pkt., 5c; oz., 25c.

**GIANT HYACINTH-FLOWERED.** New. Extra large and fine. Pkt., 10c.

### *LONG'S* Canterbury Bells

Hardy biennials, blooming second year from seed. Plants 3 feet high. Flowers bell shaped, and many colors. Very showy. Sow from May to August.

**F19. LONG'S SPECIAL MIXTURE.** Single, double, and "cup and saucer" varieties; all mixed; very fine. Pkt., 10c.

### *LONG'S* Hardy Carnations

Biennials. These lovely fragrant carnations are the most profuse bloomers of all the so-called pinks.

**F20. MARGARET.** Double flowers with lovely fringed petals; delightfully fragrant; wide range of charming colors. Extra fine. Pkt., 10c;  $\frac{1}{4}$  oz., 35c.

### *LONG'S* Celosia or Coxcomb

**F22. OSTRICH PLUME.** Feathered varieties mixed. Pkt., 5c;  $\frac{1}{4}$  oz., 25c.

**F23. CRESTED COXCOMB.** Dwarf plants with bright red combs. Pkt., 10c.

### *LONG'S* Cobaea Scandens

(Cathedral Bells)

**F24.** Rapid growing climber 15 to 20 feet in a few months. Has lovely lilac bell shaped flowers. Plant seeds on edge. Pinching few inches off top of plant when 6 inches high or so will make it branch out and produce denser covering. Pkt., 10c;  $\frac{1}{2}$  oz., 25c.

### *LONG'S* Columbines (Aquilegia)

Early blooming hardy perennial with graceful long spurred flowers. Very showy.

**F25. TRUE ROCKY MOUNTAIN COLUMBINE.** The Colorado State flower, and most popular of all columbines. White center with blue petals. Pkt., 10c;  $\frac{1}{4}$  oz., 40c;  $\frac{1}{2}$  oz., 75c.

**F26. MIXED COLUMBINES.** Good variety of colors. Single and double mixed. Pkt. 10c.

### *LONG'S* Early Giant Cosmos

Heretofore it has been necessary to list two strains of cosmos, the early with small flowers, and the late or giant flowering.

I now offer you this "2-in-1" strain, combining earliness with fine large flowers.

**F27. WHITE; F28 PINK; F29 CRIMSON; F30 FINE MIXED.** Your choice of any of these colors, or mixed: Pkt., 10c;  $\frac{1}{2}$  oz., 25c.

### *LONG'S* Cypress Vine

**F31.** Beautiful rapid growing climber with feathery foliage and star-shaped blossoms. Soak seed 24 hours in warm water. Pkt., 10c;  $\frac{1}{2}$  oz., 25c.

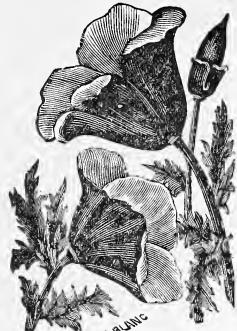
### *LONG'S* Double Daisy

The poet's favorite flower, perennial, blooming first year from seed. Very neat for borders.

**F32 PINK; F33 WHITE; F34 MIXED.** Price for either color or mixed: Pkt., 10c.

### *LONG'S* Shasta Daisy

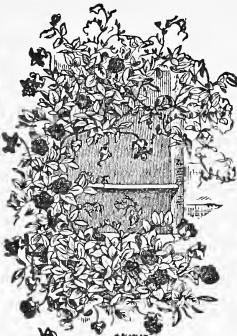
**F35. CHASTA DAISY.** Originated by Burbank. Large white flowers on long stiff stems, great bloomer, fine for cutting, perennial; roots may be divided after a few years and reset. Pkt., 10c.



California Poppy



Carnation



Cobaea Scandens



Celosia

### *LONG'S* California Poppies

Blooms early and continuously from spring sown seed. Seeds itself after first year. Fine for beds or borders.

**F36. GOLDEN WEST.** Large yellow; the California State flower. **F37. WALLER'S CRIMSON,** the best fixed strain of carmine-crimson, extra fine. **F38. LONG'S BRILLIANT MIXTURE,** of best kinds and colors. Price, any kind: Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

### *LONG'S* "Forget-Me-Not"

**F32.** Hardy perennial and one of the daintiest of garden favorites. Blooms first year and better next. Color blue. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

### *LONG'S* Four o'Clock

**F39.** Good old-fashioned easy-to-raise flower, splendid for hedge center or background. Mixed colors. Pkt., 5c; oz., 20c.

### *LONG'S* Fox Glove

**F40.** Tall perennial with spikes of vari-colored and spotted tube-like flowers, blooming second-year from seed. Pkt., 10c.

### *LONG'S* Gaillardia

**F41.** Compact bushy plant bearing large brilliant flowers. Fine mixed. Pkt., 5c;  $\frac{1}{8}$  oz., 25c.

### *LONG'S* Geranium

**F42.** Perennial, blooming first year from seed if started early. Fine mixed. Pkt. 15c.

**F033. GRAND ZONALE.** Mixed. Pkt., 25c.

### *LONG'S* "Satin Flower" (Godetia)

**F43.** Hardy annual about 18 inches tall, bearing many showy flowers of satiny texture in rich and varied colors. Does well in poor soil and somewhat shady places. Fine mixed, Pkt., 5c;  $\frac{1}{4}$  oz., 15c.

### *LONG'S* Curious Gourds

Don't overlook these for the children. Easily grown, rapid climbers, tender, sow after danger from frosts.

**F44. NEST EGG.** Grow your own nest eggs. Give the hen an inspiration. Plant this seed in poor soil lest you raise an ostrich egg. Pkt., 5c;  $\frac{1}{2}$  oz., 15c.

**F45. DIPPER.** Dippers are now so high that it might pay to grow your own dippers and be independent of the dipper trust. Pkt., 5c;  $\frac{1}{2}$  oz., 15c.

**F46. MIXED GOURDS.** Ornamental gourds, large and small, all shapes and colors. Many odd, fantastic varieties. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

### *LONG'S* Gypsophila

Graceful plants of light fairy-like growth, covered with tiny white flowers. In great demand for combining with sweet peas and other cut flowers. Note that there are two kinds, the annual and perennial.

**F47. ELEGANS (ANGEL'S BREATH) ANNUAL.** Blooms first year from seed. Not so dainty as the perennial. Good plan to sow both kinds this spring, so as to have a supply this year and next. Pkt., 5c; oz., 25c. **F47½.** Same as F47 above, but dainty pink. Annual. Pkt., 10c.

**F48. PANICULATA (BABY'S BREATH) PERENNIAL.** Blooms second year from seed and increases in size of plants each year. The tiny white flowers on branched stems are so thick as to give the plant a white lace-like effect. A "perfect dream." Pkt., 10c;  $\frac{1}{2}$  oz., 25c.

**F049. DOUBLE GYPSOPHILA.** New. This comes part semi-double and single. About one-fourth comes double. Perennial. Color white. Pkt., 25c.

### *LONG'S* Heliotrope

**F50.** Perennial, blooming first year from seed. Choice mixed. Pkt., 10c.

### *LONG'S* Double Hollyhocks

The modern double hollyhocks bear flowers as double and beautiful as the most charming rose. My double varieties in seed and plants are of the finest. Biennial.

**F51.** Extra fine mixture of double flowering kinds. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

**SEPARATE COLORS DOUBLE HOLLYHOCKS:** **F52** White. **F53** Yellow. **F54** Red. **F55** Pink. **F56** Blush. **F57** Maroon. **F58** Black. Choice of colors. Pkt., 10c

**F51. "COLORADO SUNSET" HOLLYHOCK.** Rose-flowered double type. Color varying from apricot to bronze. Pkt., 15c.

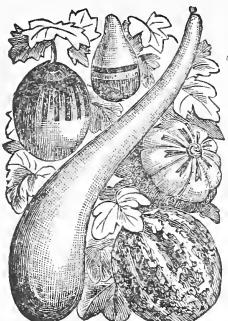
**F59. SINGLE HOLLYHOCKS.** Mixed. Pkt., 5c. See Plant Pages for Hollyhock Roots.

### *LONG'S* "Job's Tears"

**F61.** Curious ornamental grass with hard seeds used for beads. Pkt., 10c;  $\frac{1}{4}$  lb., 25c.

### *LONG'S* Japanese Hop

**F62.** A rapid growing climbing vine much used for covering unsightly objects and for shading windows and porches. Soak seed 24 hours. Pkt., 10c;  $\frac{1}{2}$  oz., 25c.



Mixed Gourds



Gypsophila



Japanese Hop



Marigold

**LONG'S** Annual Larkspur

F63. Dwarf Mixed. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.  
 F64. Tall Mixed. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

**LONG'S** Scarlet Flax

F65. Slender plant with bright red saucer-shaped flowers. Very showy and easy to grow. Pkt., 5c; oz., 25c.

**LONG'S** Marigolds

F67. FRENCH DWARF. Mixed. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

F67½. "LEGION OF HONOR." Rich golden yellow flowers, marked velvety brown. Fine for borders and edging. Pkt., 10c;  $\frac{1}{2}$  oz., 30c.

F68. AFRICAN TALL. Long's Special Mixture of large beauties. Pkt., 10c;  $\frac{1}{2}$  oz., 30c.

**LONG'S** Mignonette

No garden is complete without this old-fashioned fragrant flower. Comes into bloom soon.

F69. LONG'S SPECIAL MIXTURE. Extra fine varieties mixed. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

**LONG'S** Morning Glories

F70. TALL. Always popular for fences and screens, etc. Fine mixed. Pkt., 5c; oz., 20c.

F71. DWARF. Good for beds or borders. Pkt., 5c; oz., 25c.

**LONG'S** Mexican Fire Bush

F73. Also called Summer Cypress. The moss-like green foliage turns to deep carmine in fall. Makes inexpensive showy edge. Improved giant strain. Pkt., 10c;  $\frac{1}{2}$  oz., 25c.

**LONG'S** Scabosia

F74. Also known as Pincushion Plant. Flower stems are long and keep well in water. Fine mixed. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

**LONG'S** Nicotiana

(Flowering Tobacco Plant)

F75. Blossoms something like petunia but with longer tubes. Flowers very fragrant and showy. Pkt., 5c;  $\frac{1}{4}$  oz., 25c.

**LONG'S** Delightful Petunias

Great bloomer. Very showy and fragrant. My Giants of California are simply marvelous in size, forms and colors.

F88. CHOICE MIXED. Splendid mixture of single varieties. Pkt., 10c;  $\frac{1}{4}$  oz., 35c.

F89. GIANTS OF CALIFORNIA. Extra large flowers of every conceivable shade. Many blossoms ruffled. Truly wonderful. Pkt., 25c.

**LONG'S** Nasturtiums (Dwarf)

About one foot high and very effective. They bloom and bloom and bloom. The more you pick them the more they bloom. Fine for beds and borders, also for planting in rings around trees. Stand hot locations better than many other flowers. Easy to raise. Tramp soil after planting so it will come in contact with all portions of the ribbed seed. Soaking seed 24 hours will also hasten germination. Sow any time from first of April to July.

F76. LONG'S SPECIAL MIXTURE. Extra fine mixture of Dwarf sorts, always giving pleasing results. Large Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c.

## Separate Colors Dwarf Nasturtiums

F77. EMPRESS OF INDIA. Crimson. Foliage dark.

F78. GOLDEN KING. Rich orange-yellow.

F79. KING THEODORE. Velvety crimson.

F80. PEARL. Light lemon-yellow or primrose.

F81. VESUVIUS. Rich deep apricot.

Any separate color: Pkt., 10c; oz., 20c.

**LONG'S** Nasturtiums (Tall)

Fine for covering trellises, stumps, fences, etc. Very showy when planted at top of steep bank and allowed to run down the bank. Or may be allowed to ramble in any location. Flowers larger and stems longer than the dwarf kinds.

F82. LONG'S SPECIAL MIXTURE. Fine assortment of large flowering tall or climbing nasturtiums. Large Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c.

## Separate Colors Tall Nasturtiums

F83. KING THEODORE. Crimson-maroon.

F84. ROSE. Bright soft rose.

F85. SCARLET. Bright scarlet.

F86. SUNLIGHT. Clear rich yellow.

F87. VESUVIUS. Salmon-rose.

Any separate color: Pkt., 10c; oz., 20c.

**LONG'S** Phlox Drummondii

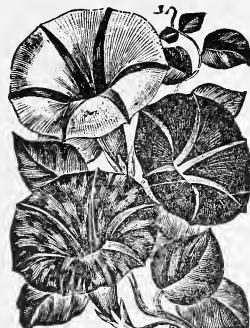
For beds and massing nothing surpasses these beautiful annuals.

F91. GRANDIFLORA MIXED. Pkt., 10c;  $\frac{1}{4}$  oz., 50c.

**LONG'S** Pinks (Dianthus)

Hardy sweet scented annuals blooming all summer in variety of brilliant colors.

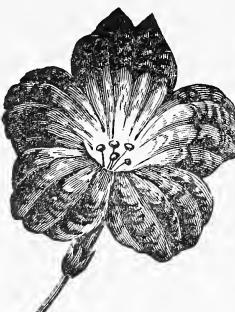
F94. HEDDEWIGGIL. Finest of all pinks. Great variety of colors. Pkt., 10c;  $\frac{1}{4}$  oz., 50c.



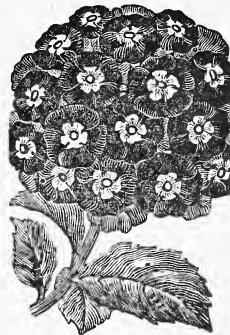
Morning Glory



Pink



Salpiglossis



Verbena

### *Long's* Gorgeous Poppies

Wonderfully brilliant and always popular flowers. Sow where wanted, as difficult to transplant.

**F94½. BRILLIANT BEAUTIES.** My special mixture of finest double and other charming sorts in wide range of colors. Pkt., 5c;  $\frac{1}{2}$  oz., 25c.

**F95. "TULIP POPPY.** Vivid scarlet. Pkt., 10c;  $\frac{1}{4}$  oz., 35c.

**F96. SHIRLEY.** A beautiful single poppy, white, pink, lavender, purple, crimson, all mixed. Pkt., 5c;  $\frac{1}{4}$  oz., 25c.

**F96½. ICELAND.** (Perennial.) Very hardy, fragrant, blooms first year from seed, good for cutting. Fine mixed. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

**F97. ORIENTAL.** (Perennial.) Tall and showy. Scarlet flowers. Looks well among shrubs. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

### *Long's* Castor Beans

**F98.** Tropical looking plants growing to immense size from seed sown after danger from frost. Richer the ground the bigger they grow. Good for backgrounds and centerpieces. Children enjoy seeing them grow so quickly to size of trees 6, 8, or 10 feet tall. Pkt., 10c; oz., 25c.

### *Long's* Portulaca

(Moss Rose)

**F99. SINGLE MIXED.** Pkt., 5c;  $\frac{1}{4}$  oz., 25c.

**F100. FINE DOUBLE MIXED.** Pkt., 10c.

### *Long's* Velvet Trumpet

Salpiglossis

**F101.** Very showy plant with trumpet-shaped blossoms in rare combinations of color, beautifully marbled and penciled. Pkt., 10c.

### *Long's* Salvia (Scarlet Sage)

**F102.** Standard bedding plant where brightness of color is wanted. Flowers borne in spikes of fiery red lasting long time. Pkt. 10c.

### *Long's* "Hit or Miss"

**F125.** Great mixture of many kinds flower seeds—as one customer said, "It's all hit and no miss." Something new nearly every day after begins to bloom. Makes a good hit with all who try it. Pkt., 5c.

### *Long's* Double Sunflower

**F105.** The grandest of all sunflowers, 7 feet high, with a dozen or more blossoms on each stalk. Flowers perfectly double, resembling chrysanthemums, and of a rich golden yellow color. Perfectly gorgeous for centerpiece or background, very hardy, easily grown from seed. Pkt., 10c; oz., 25c.

### *Long's* New Red Sunflower

**F106.** Originated here in Boulder. Valuable as a novelty only. Does not come all red. More brown than red, some flowers other colors, as color not yet fixed. Many of the combinations of colors are as interesting as the real red. Pkt., 10c;  $\frac{1}{4}$  oz., 25c.

### *Long's* Stocks—Ten Weeks

**103½.** "Cut and come again" fragrant annual. Profuse bloomer. Colors range through all the soft and distinct shades. Pkt., 10c.

### *Long's* Sweet Sultan

**F107.** Delightfully fragrant flowers with small fringed petals. Easily grown. Something like Bachelor's Button. Choice mixed. Pkt., 5c;  $\frac{1}{4}$  oz., 15c.

### *Long's* Sweet William

Well known hardy perennial producing gorgeously colored fragrant flowers.

**F108. SINGLE MIXED.** Pkt., 5c;  $\frac{1}{4}$  oz. 15c.

**F109. DOUBLE MIXED.** Pkt. 10c;  $\frac{1}{4}$  oz., 35c.

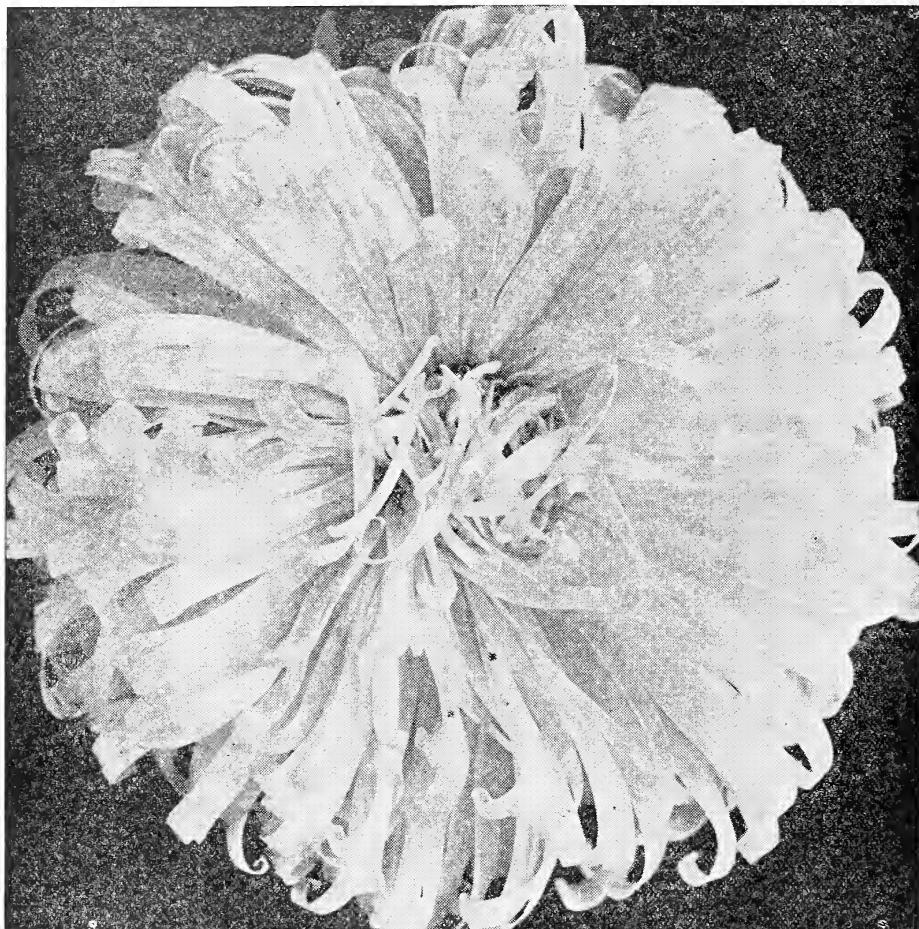
### *Long's* Verbenas

**F110. MAMMOTH MIXED.** Also, Red, White, Purple, or Pink. Your choice, Pkt. 10c.

### *Long's* Wild Cucumber

**F115.** One of the quickest growing annuals, 30 feet in a season sometimes. Foliage dense, great for shade. Produces many white blossoms, followed by ornamental prickly seed pods. Will self sow after first season. Soak seed in warm water 24 hours, or cut small portion of shell away from germ end (the pointed end). Pkt., 10c; oz., 25c.

# *LONG'S* Superb Giant Asters



Aster, showing shaggy, ragged, type of both the Giant Crego and Astermum, much admired by many, because they resemble the choice Japanese Chrysanthemums.

## *LONG'S* Giant Crego and Astermum

These two varieties are somewhat different, yet so much alike that I am going to mix the two, giving you both in one packet of white, rose-pink and lavender. Have never been able to get Astermum in shell-pink, so give you straight Crego in that color of the shaggy type aster.

Crego branches more than the Astermum, and stems are more slender, though hold the flowers well. Both, when well-grown, have immense blossoms and both keep well as cut flowers. The two, Crego and Astermum, mixed in separate colors, as follows: **A8** Pure White; **A9** Rose Pink; **A10** Lavender; **A11** the three colors mixed. All 10c pkt.; 3 pkts., 25c.

Crego, **A11½**, Shell-Pink, pkt., 10c; 3 pkts., 25c.

## *LONG'S* Special Mixture

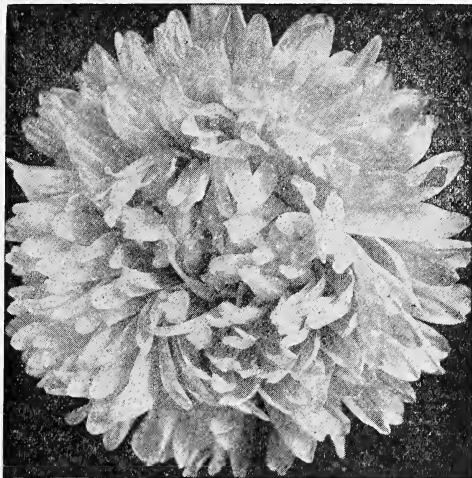
To make this superb mixture I've used the kinds best for cutting—plenty of best white and pinks, including Betty Jung, Peach Blossom, etc. Pkt., 10c;  $\frac{1}{4}$  oz., 50c.

## Asters (In Separate Colors)

My best Giant Asters, selected from the different types, Semple, Crego, Royal, Astermum, etc. Several types in each color. **A2** Snow White; **A3** Crimson; **A4** Shell Pink; **A5** Rose Pink; **A6** Purple; **A7** Lavender. Pkt., 10c. Any 3 pkts., 25c.

## Prices for 3 Pkts. or More

All asters on both pages: Pkt., 10c; 3 pkts. for 25c; 5 to 10 pkts. at 8c a pkt.; 10 pkts. or more at 7c a pkt.



(Boulderado Beauty. Size Reduced.)

**LONG'S**

## Boulderado Beauty Giant Asters

Similar in type of flower (see illustration above), and growth, to the Late Branching Asters, but the large blossoms are produced on much larger and heavier stems, with few side shoots.

Plants very vigorous, 30 to 36 inches tall; flowers, immense and fully double, are borne on long, strong stems, and last two to three weeks after cutting.

A20. Shell Pink	A21. Rose Pink
A22. Lavender	A23. Purple
A24. White	A25. Mixed

Any color or mixed: Pkt., 10c.

## LONG'S Royal Asters

A strain of early Giant Asters, especially valuable for cut flowers on account of their long, strong stems that are almost free from side branches. Same type or form as illustrated above.

A12. White	A13. Purple
A14. Shell Pink	A15. Rose Pink
A16. Lavender	A17. Mixed

Any color or mixed: Pkt., 10c.

## New "Betty Jung" Aster

Here is Mr. Jung's own description: "This new aster outrivals anything we have yet seen in asters, and we have been growing and improving them for 17 years. This is by far the longest stemmed aster to be had."

"The flowers are giant in size, very full and double, and of lasting quality. Yet this aster comes into flower early, for one so large; before the late branching type.

"Its color is a live bright rose-pink. It does not have that bluish or faded-out appearance of so many rose-colored asters. It shows up unusually fine in artificial light." Pkt., 10c.

## Giant "Peach Blossom" Aster

Similar in type to Boulderado Beauty. Stems very stout and of good length. Flowers large. Color suggests its name, "Peach Blossom." Pkt., 10c.

## Fancy Yellow Aster

There is no deep yellow in aster. But here's a light yellow, that will help some. Pkt., 10c.

## Everlasting Aster

Color flesh-pink. It resembles a large *Heli-chrysum* (Straw Flower). When cut and dried it retains its color and shape like an everlasting flower. Pkt., 10c.

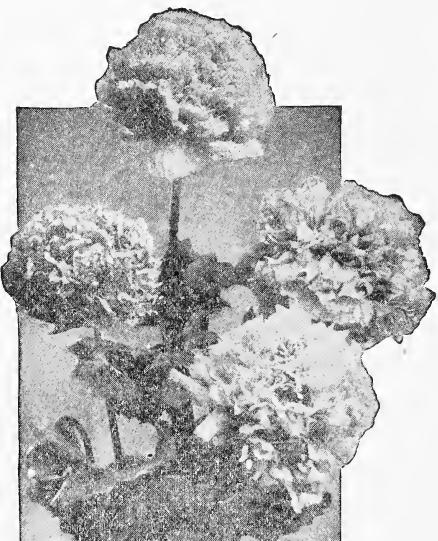
## LONG'S Aster Plants

(Not Mailed Beyond 5th Zone)

Orders for plants are taken with the understanding that the plants will be sent when ready for setting out, the time depending on the season. Ready about June 1st. Now when I say "about June 1st," I'm something like the old maid who told the census taker she was "about 30 years old." Some seasons the plants are not ready until the 10th to 15th of June. If you wish them earlier you can buy the seed and start them indoors. Bear in mind asters do well sown right outdoors any time from middle of April to last of May.

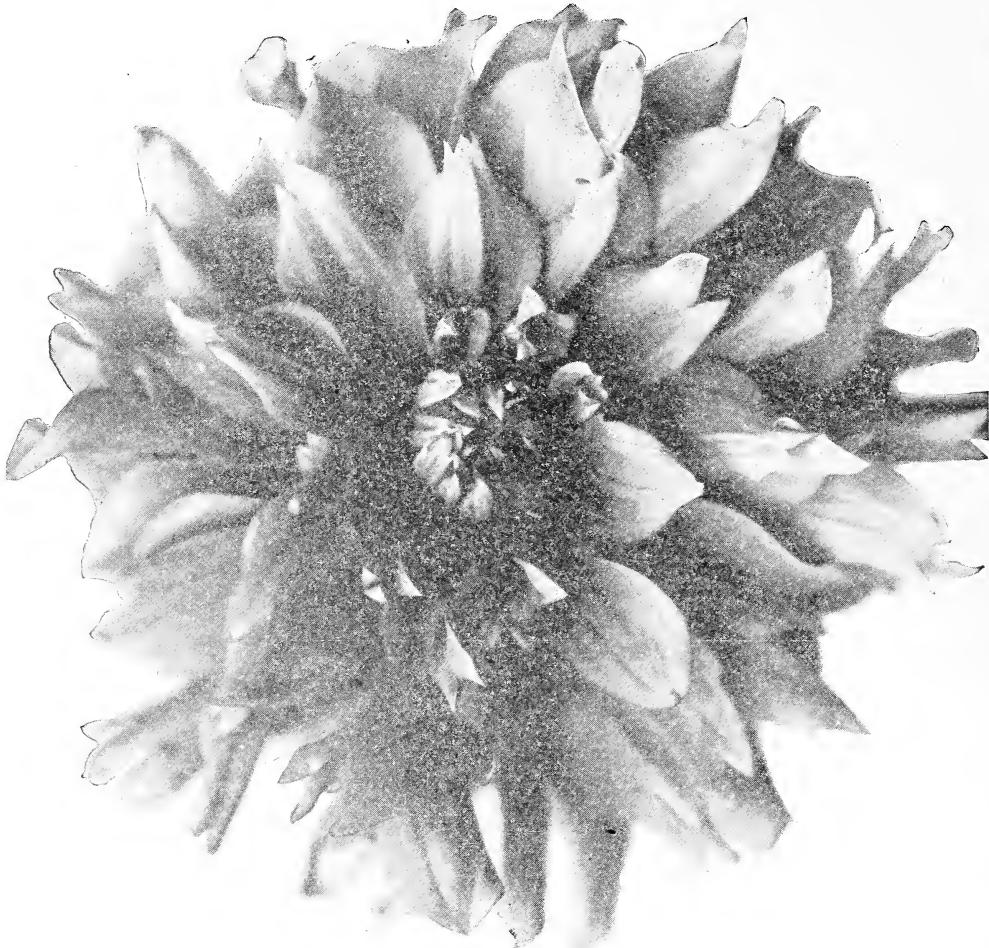
**MIXED ASTER PLANTS.** Popular cut flower mixture. 16 plants (smallest quantity sold), 50c; 45 for \$1.00; 110 for \$2.00; prepaid.

**PLANTS IN SEPARATE COLORS.** White, Pink, Lavender, Purple and Betty Jung. Your choice, 12 (smallest quantity sold), for 50c; 33 for \$1.00; 80 for \$2.00; prepaid.



## Peony-Flowered Poppies

Gigantic blossoms like fine double peonies. Rich colors. Easy to grow. Sow outdoors. Thin to 6 inches.



### New Dahlia "J. D. Long"—Originated by Wilmore

**D66.** Introduced in 1923 by W. W. Wilmore, Denver's dahlia specialist, and described by him as follows:

"A thrifty robust plant, growing to a height of six feet and producing fine large blooms of great substance, holding well through the hottest weather. Flowers are always full and well formed. Stems are long and rigid, holding the flower erect. Color, a blending of autumn tints of salmon-pink, amber and bronze. In type it is perhaps nearest to the Decorative, yet really it is a type of its own." \$1.02.

### J. D. L. Dahlias at Special Prices to My Customers

Please read conditions carefully. If you order not less than \$1.00 worth of other goods from this catalogue, you may have a JDL dahlia for 78c. If order amounts to not less than \$2.00, you may include a JDL dahlia for 66c. If order of other goods is not less than \$3.00, you may add a JDL at 54c. If order runs not less than \$4.00, take a JDL at 42c. If order totals not less than \$5.00, you are welcome to a JLD at 36c. If order runs \$6.00 or more, just add 30c for a JDL.

Not over three to a customer, without first writing to see if we can spare more.

**Still Better**—If you order enough other dahlias to make 6 or more you may deduct one-sixth from these special prices. Now, then, everybody ought to be happy!



## The J. D. Long Dahlia—and J. D. Long's Daughter

This picture was taken in October, just before Jack Frost came. The day was windy and unfavorable for getting a good picture, but it shows how strong and thrifty the J. D. Long dahlias grow.

There were over 1,000 plants of J. D. L.'s in this patch, all 6 to 8 feet high and loaded with blooms. It was a "grand and glorious" sight, as thousands who saw these dahlias can testify.

The best part of the picture is our daughter, Elizabeth. Many of you have seen her picture in former catalogues, but will be surprised to note "how she has grown." She's eleven now, in Junior High school, getting on fine.

This J. D. Long dahlia is really a remarkably thrifty grower. It's one of the first to come up and makes a rapid, strong growth right from the start. You hardly need to mark this variety, for it can usually be recognized by its wide leaves and sturdy growth, even before coming into bloom.

## Special "Excursion Rates" on 6 or More Dahlias

Here's good news. Any six or more dahlias at the rate of "6 for the price of 5."

You don't have to buy 6 of a kind to get this special rate. Just pick out any dahlias you want. Sort them up, one or more of a kind, as you wish. Then figure the total cost at prices given. From this total, deduct one-sixth. Just divide the total by 6 and subtract the one-sixth from the total, and pay the amount after deducting this one-sixth.

You will note that I've priced each dahlia so that no fractions will occur. It's simple and easy to figure your saving on 6 or more bought at one time.

Don't forget that you may include the J. D. Long dahlia to make the 6 or more. See special prices for this dahlia on opposite page.



## Oh, Min! Look Who's Here—Wilmore's "Andy Gump"

**D121.** "While this name may suggest the humorous, yet the reality has nothing of humor connected with it, other than the extremely long stem which suggested the name when I saw the large flower attached to the long neck. Of the many valuable varieties I have originated, and that are holding places of popular favor throughout the dahlia world, I look upon Andy Gump as one of my very best productions. The flower is a perfect decorative form above medium in size and keeps well when cut.

"The stems are extremely long, from 18 to 36 inches. A vase of this variety easily took first prize at our 1923 show for the best vase of any one variety. In the vase of 25 blooms there was no stem less than 28 inches. Stems rigid and erect; color bright red. The plant grows to a height of 5 feet with numerous side branches, vigorous and healthy, producing a mass of excellent roots.

"As compared with other new varieties, it should perhaps be listed at a much higher price."—Wilmore. Price for "Andy," \$1.02.

### Regarding Types or Shapes of Dahlias

There are five main divisions or classes in my list: Cactus, Hybrid-Cactus, Decorative, Peony, and Show. Cactus is well shown in illustration of Golden West. Some cactus dahlias have sharper pointed petals than this. If petals are not so sharp pointed, then the peony is classed as a hybrid-cactus, being between a real cactus and a decorative type. D29 Mrs. Warnaar is an example of the hybrid-cactus. .

The decorative type is shown in illustration of "Andy Gump." While Pahaska is classed as a decorative, yet it approaches the hybrid-

cactus type. The peony type or form is well shown in illustration of Sweetheart's Bouquet. The show type is more of a full, double, ball-shaped form, as seen in illustration of Gero's Pink. Not all show dahlias have the petals quilled so decidedly as this one, however.

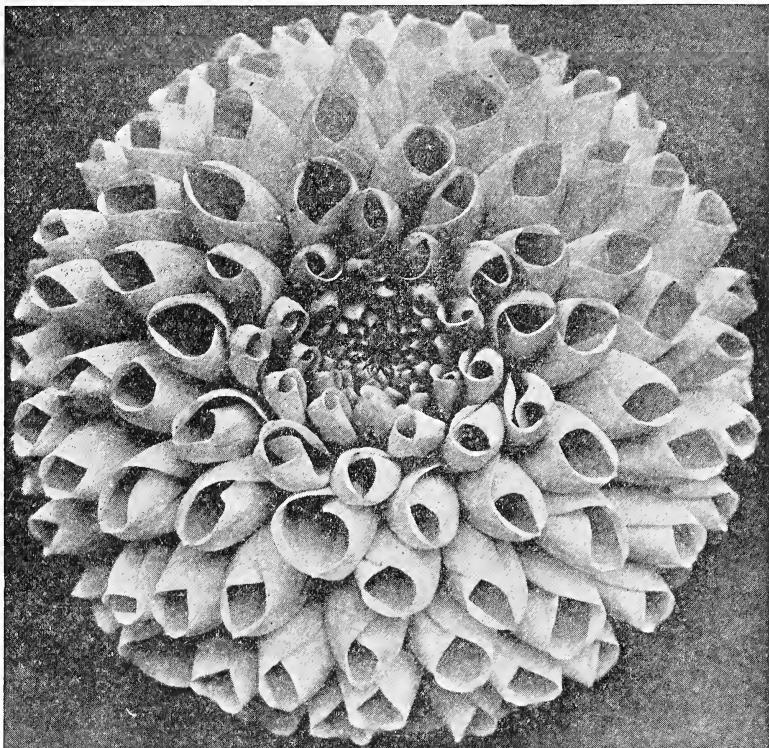
Now unless otherwise specifically mentioned in my descriptions, the type is given in parenthesis, following name of dahlia. By noting this and reading color descriptions, you can visualize the flowers.

## UNIQUE QUILLED DAHLIA “GERO’S PINK”

**D31.** A seedling of the well known “quilled” dahlia, Grand Duke Alexis, resembling its parent in form but color a rich pink.

The plant is a rank and healthy grower and blooms with good stems for cutting. Each, 48c.

This illustration will also help you to visualize the following other dahlias of the quilled show type. D. M. Moore, Delighted, Lavoni, Grand Duchess Marie.



## Two Outstanding Dahlias, But Not Expensive

**D21. NAIAD.** (Peony.) Tall, free blooming plant; stems extra long. Color a tinted cream pink. Beautiful by day, and a dream under artificial light. 48c.

**D21. MRS. CARL SALBACH.** (Dec.) Large and beautiful soft lavender-pink. Stems remarkably long and strong, holding the flower erect. Fine for cutting. 54c.

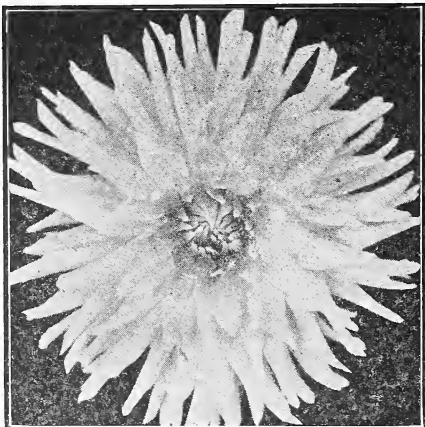
## R. T. Davis, Jr., Introduces “Ruth Jacqueline”

**D99.** Mr. Davis, the originator says: I consider this the finest canary yellow cactus yet introduced. The flowers are large and of very graceful formation, held erect on stiff stems often measuring 18 inches, or even more, in such a manner that they show the full flower to best advantage. The narrow petals are slightly cleft at the tips. The plant is a strong, robust grower and a prolific root maker. A wonderful cut flower and exhibition variety. A 100 per cent cactus dahlia.” \$2.04.

## Exquisite New Dahlia, “Ninfea” (Water Lily)

**D58.** Here’s a “Made in Colorado” dahlia that is “delightfully different.” Originated by R. T. Davis, Jr., and most appropriately named, Ninfea, which is Spanish for water lily. When you see this dahlia unfold its lovely blossoms you will say, “Why, of course,—the name just fits.”

Ninfea is an early and profuse bloomer. Color, a soft lavender-pink, shading to creamy-white in center, its broad upturned petals greatly resembling a water lily. Keeps unusually well when cut and is a splendid exhibition flower. \$1.50.



Golden West (Size Reduced)

**D2. MOONBEAM.** (Decorative.) Canary yellow. 24c.

**D3. CHARLES CLAYTON.** (Cactus.) Vivid red. 24c.

**D5. DELICE.** (Dec.) Rose pink; one of best for cutting. 30c.

**D7. D. M. MOORE.** (Show.) Deep velvety maroon; monster flower. 30c.

**D8. LAVONE.** (Show.) Bright, lively pink, of fine form. Blossoms just medium in size, but lots of them, and keep well when cut. 24c.

**D16. GOLDEN WEST.** (Cactus.) Golden yellow or burnt orange, shading to clear yellow in center. Good stiff stems and good keeper when cut. One of the finest Cactus dahlias I know of, regardless of price. 48c.

**D17. "DEE-LIGHTED."** (Show.) Largest show dahlia I ever saw. Pure white. Makes 'em all sit up and take notice. A wonder. 36c.

**D23. MINA BURGLE.** (Dec.) One of the finest crimson decorative dahlias known. Good stems; fine for cutting. 30c.

**D29. MRS. WARNAAR.** (Hybrid Cactus.) Creamy white, with just a tinge of pink. A mammoth hybrid cactus; often 9 inches in diameter in our climate. (Do not confuse this with No. D97.) 54c.

**D30. ATTRACTION.** (Cactus.) Large elegant flowers of clear lilac-rose; long strong stems; an exhibition and garden sort of rare merit. 54c.

**D39. GEO. WALTERS.** (Cactus.) A monster; salmon-pink, shaded to old gold. Too big for cutting. \$1.02.

**D50. LUCY DAVIS.** (Dec.) Rich golden apricot; clear, without shading. Blossoms immense. Each, \$1.02.

**D54. MRS. W. E. ESTES.** (Hybrid Cactus.) One of the finest of all pure white dahlias. Blooms immense in size. Form between that of cactus and peony type. Good long, strong stems. Plant grows very tall. \$1.02.

**D40. PAKASKA, or BUFFALO BILL.** (Dec.) Originated by Wilmore, Denver. Of immense size, measuring from seven to nine inches in diameter without disbudding. Disbudded it should reach twelve inches. Plant is healthy, but of slender branching growth. Petals are very long and curved, giving the flower its shaggy appearance (the Indian name for Buffalo Bill meaning Long Hair). Color, between an apricot and fawn with a distinct pink shading. \$2.04.

**D62. PRIDE OF CALIFORNIA.** (Dec.) A monster red dahlia. Exceptionally fine decorative dahlia, vivid red. Stems good. 48c.

**D64. MILLIONAIRE.** (Dec.) Clear, rich orchid, shading to almost white in center. Blossoms few but gigantic. 90c.

**D66. J. D. LONG.** See pages 34 and 35. Note very special offer to those who order \$1.00 worth or more of other goods from this catalogue.

**D70. BRIDE'S BOUQUET.** The ideal white cactus dahlia. Flowers pure white, medium to large, of perfect form. Stems remarkably long and strong, holding the blossoms at right angles. When cut, it is one of the most lasting. 54c.

**D81. ROSA NELL.** A grand decorative variety, referred to by many dahlia growers as "the 100 per cent dahlia". It's about as near faultless as we can hope to find. The color is a pure bright rose, so rich, strong and rare, that in color it stands alone. Habit, constitution, foliage, flower and stem, perfect. \$1.08.

**D83. JUDGE MAREAN.** Flowers very large and of perfect decorative shape; the colors changing as the flowers pass through different stages of development, are a combination of glowing salmon-pink, red, iridescent orange, yellow and gold, all blending most harmoniously. \$1.02.

**G97. MRS. I. DE VER WARNER.** (Decorative.) A charming deep mauve pink or cattleya color. Extra strong grower, producing its gigantic blossoms freely and rigidly erect on long, cane-like stems. (Not same as D29.) \$1.50.

**D89. EL JEBEL.** (Hybrid Cactus.) A grand seedling of the well known Geisha. Combination of scarlet and gold, shaded to amber yellow. The long narrow petals are fantastically curved and twisted. Profuse bloomer. \$2.04.

**D101. EARL WILLIAMS.** (Dec.) An exceptionally attractive variegated dahlia of large size. Supposed to be brilliant scarlet, with petals tipped white. But it does not come this way always. Often the flowers have as much white as scarlet, and some will even be pure white, on same plant with all red or part white and part red. But the splendid feature about it is that no matter how the colors are placed or blended the flowers are very unique and pleasing anyhow. \$1.50.

**D105. PAUL MICHAEL.** An immense decorative dahlia of bright apricot and bronze shadings. \$1.02.

**D106. GRAND DUCHESS MARIE.** (Show.) Large, soft buff overlaid with orange; reverse side of petals shaded pink. Petals beautifully quilled. 30c.

**D107. GORGEOUS.** (Dec.) Gigantic blossoms of red and gold combination. The name is well deserved. \$1.20.

**D108. SOUVENIR FRANZ LISZT.** (Peony.) Dark purple maroon, veined and shaded with white. 30c.

**D111. ALFINE WONDEE.** (Hybrid Cactus.) Pure white, as name implies. Blossoms produced in groups of three, on good stems. An early and constant bloomer. \$1.08.

**D117. AMUN RA, or "SUN GOD."** (Dec.) A sensational decorative dahlia of immense size. Outer petals gorgeous copper and orange tones, shaded to gold and amber, deepening in the center to a dark reddish-brown, the effect being that of a glorious sunset. \$1.50.

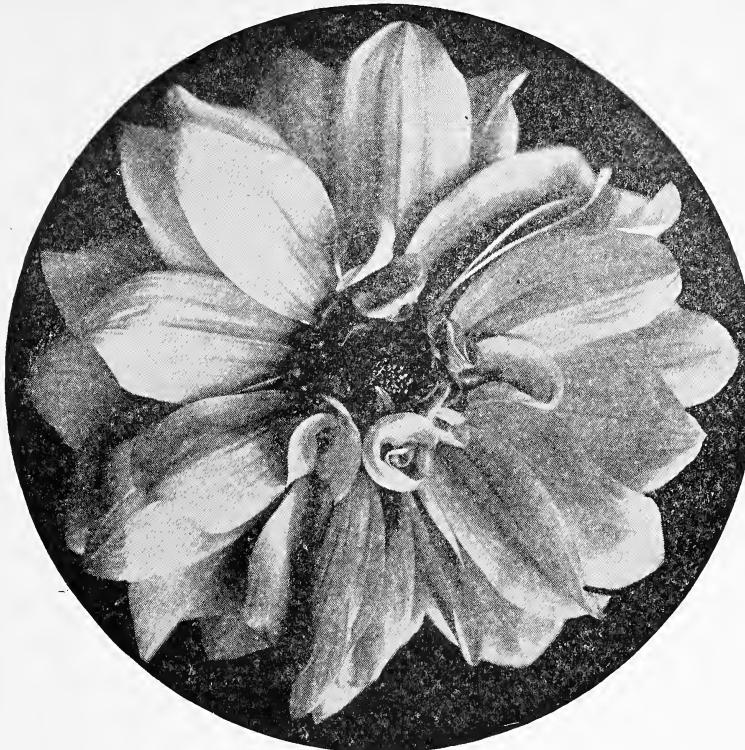
**D119. WASHINGTON CITY.** (Cactus.) Very large pure white cactus with star-like flowers on long, stiff stems. A splendid white. Each, 60c.

## Sweet Heart's Bouquet

**D36.** Another famous dahlia, "Made in Colorado" by my good friend Wilmore, the oldest dahlia specialist in America.

Color, unique shading of salmon-rose, tinged with fawn; is pleasing alike in both day and artificial light.

A perfect flower of the popular peony type, much larger than this illustration; stems extra long and wiry, holding the flowers up well. One of the earliest to bloom, and continues throughout the season. 48c.



## You Can Originate New Dahlias from Seed

New dahlias all come from seed. Dahlia tubers come true and do not mix, but seed will produce various types and colors, probably all different from the kind that supplied the seed. There seems to be no law or rule governing this. They seem to come just as they please. That's what makes it interesting and also gives the amateur a chance to originate new dahlias of merit.

Where space is limited, it is desirable to plant tubers of a few real good kinds. But if one has more room, then it is indeed worth while to grow some from seed also. Not all from seed will be prize winners, so the usual method is to grow quite a number, then in the fall select your favorites, saving the tubers for next year.

This is the method followed by dahlia specialists. They grow hundreds and thousands from seed, then select only a few that show unusual merit. These are saved, named, and stock increased until enough on hand to offer at fancy prices. You, too, can name your own new dahlias. Some name them for members of their families, or friends. Splendid idea.

As there are no two people just alike, so there are peculiarities and individualities that make these dahlias of yours, grown from seed, different from others. This adds much interest to growing dahlias from seed.

Sow the seed out in the garden after ground warms up or start indoors and transplant. Protect plants from frosts. Dahlias from seed will nearly all blossom even from outdoor planting, and almost as soon as those from tubers.

**Long's Special Mixture.** A good mixture, same as I've offered for several years. Will produce many fine flowers, and some grand new ones well worth saving and naming. Pkt., 25c; 5 pkts., \$1.00.

**Long's Professional Mixture.** Seed saved from only the newer and finer, expensive varieties. Should produce a larger per cent of extra fine kinds, though we never can tell. Same as I myself shall use, hoping to get a few rare beauties. Pkt., \$1.00.

**Note.** Dahlias from seed come mostly semi-double or peony flowered, the most popular type.

**TO KEEP DAHLIAS HEALTHY.** Watch your plants closely. If the leaves blast, spray the plants well several times with some tobacco solution or kerosene emulsion. Chances are that aphis, lice or tiny red spiders are at work. See page 58 regarding use of contact spray. Dashing plants frequently with water from hose will also help some. I use Black Leaf 40, Tobacco Soap or Hall's Nicotine. But don't wait too long—do the pest before they do the plants.

Dahlias are seldom troubled with pests, but turn brownish, or curl, or if the buds seem to be at work. See page 58 regarding use of contact spray. Dashing plants frequently with water from hose will also help some. I use Black Leaf 40, Tobacco Soap or Hall's Nicotine. But don't wait too long—do the pest before they do the plants.

# SONG'S GLORIOUS GLADIOLI

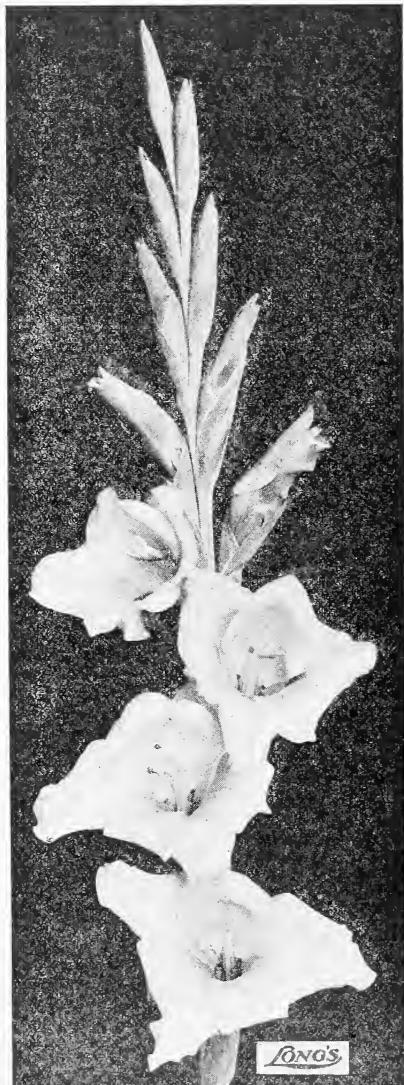
## A Selected List of Favorite Named Varieties

Each season I drop a few kinds from my list and add others that are newer and still finer. But there are some of the better known varieties, such as Kirtland, Tiplady, Pendleton, Prince of Wales, that though older and low in price are worthy a place in any collection.

**Size of Bulbs:** Bulbs in list immediately

following are the larger, strong flowering sizes, some of which will produce two or three spikes. All guaranteed to produce at least one spike. Sizes run from about an inch up, depending on variety and my supply.

Among the later introductions, yet now priced within the reach of all, I especially recommend those marked thus: \*



**"How to Grow Glads"**  
See Page 53

**Prices per 100 Bulbs.** Where price per 100 is not stated, you may figure 100 bulbs at 8 times the price of 10 bulbs of any variety. 50 bulbs at 100 rate. **All bulbs prepaid.**

**G1. ALBANIA.** Pure, glistening white. Each, 18c; 3 for 45c; 10 for \$1.35.

**G3. ALICE TIPLADY.** Orange-saffron. Early. Each, 9c; 3 for 20c; 10 for 60c.

**\*G5. ANNA EBERIUS.** Dark velvety purple; throat shaded deeper. An unusual color in glads. Each, 12c; 3 for 26c; 10 for 80c.

**G7. B. J. HULOT.** Dark blue. Each, 11c; 3 for 27c; 10 for 80c.

**\*G9. CARMEN SYLVA.** A lovely pure white that's really white. Florists are strong for it. Each, 15c; 3 for 33c; 10 for \$1.00.

**\*G11. CRIMSON GLOW.** Deep, velvety glowing red. Extra fine. Earlier than War. Each, 9c; 3 for 25c; 10 for 70c.

**G13. DR. F. E. BENNETT.** Deep peach red overlaid with flame scarlet. Very large and "fiery-red." Each, \$1.00.

**\*G17. E. J. SHAYLOR.** Deep rose-pink. Ruffled. Strong grower. One of the best. Each, 9c; 3 for 25c; 10 for 65c.

**G19. EVELYN KIRTLAND.** Rose-pink, fading to shell pink, with scarlet blotch on lower petals. Very, very fine. Each, 9c; 3 for 25c; 10 for 70c.

**G21. GIANT NYMPHE.** Delicate salmon-pink, slightly rose flaked; violet markings. Large and fine. Each, 35c; 3 for 90c; 10 for \$2.70.

**G22. GOLD.** Pure golden yellow; throat a shade deeper. Each, 20c; 3 for 50c; 10 for \$1.60.

**G23. GERALDINE FARRAR.** Pale lavender-violet, with violet spot on lip. Sold out. Will have more next fall.

**\*G25. GOLDEN MEASURE.** Largest, deep yellow. Note the low price for this year. Each, 15c; 3 for 35c; 10 for \$1.00.

**\*G27. HAZEL DAWN.** New. Unusual strawberry pink, with throat lighter, dotted carmine. Long, strong, straight spike with many fine blossoms, placed perfectly. Each, 35c; 3 for \$1.00; 10 for \$3.00.

**G29. HENRY FORD.** Very dark purple, shading into deeper tones near the center. Now you can own a "Ford." Each, \$1.00.

**G31. J. A. CARBONE.** Orange-salmon. Very iridescent. Yellow center. Strong spike. Each, 8c.

**G32. JACOBA VON BEIJEREN.** Fine Holland violet glad. Each, 35c; 3 for 90c; 10 for \$2.70.

**\*G33. JENNY LIND.** Soft apricot-pink, throat pale yellow, the colors beautifully blending. Each, 30c; 3 for 70c; 10 for \$2.00.

**\*G35. JEWEL.** Light salmon-pink with golden throat. A lovely combination that is taking florists by storm. A real jewel. Each, 16c; 3 for 35c; 10 for \$1.00.

**G37. LE MARECHAL FOCH.** Light pink, similar to America, but earlier, larger and better. Each, 7c; 3 for 16c; 10 for 50c.

**G39. LOUISE.** Discontinued. Mrs. F. C. Peters is a newer and better lavender.

**\*G41. MARIE KUNDERD.** Charmingly ruffled, pure white. Each, 30c; 3 for 70c; 10 for \$2.00.

**G47. MRS. FRANK PENDLETON.** Light pink with dark red blotch in throat. Each, 8c; 3 for 20c; 10 for 60c.

**\*G49. MRS. LEON DOUGLAS.** Begonia rose, striped with flame scarlet. Lip pale yellow, touched with ruby. Very tall; very large; very fine in every way. Each, 35c; 3 for 90c; 10 for \$2.70.

**\*G51. MRS. DR. NORTON.** Soft pink with yellow throat. Large and grand. Each, 8c; 3 for 20c; 10 for 60c.

**G53. MRS. F. C. PETERS.** The wonderful lavender glad you've wanted. Now priced so you can have it. Each, 25c; 3 for 60c; 10 for \$1.80.

**G54. OPALESCENT.** Pale rose-lavender; pure self color, with soft lilac throat lines. Strong, straight spike, with flowers well placed. Each, 50c; 3 for \$1.25.

**\*G55. PINK WONDER.** Medium pink, shading to yellow on lower petals, overlaid with rose featherings. Very large. Each, 12c; 3 for 28c; 10 for 80c.

**G57. PRINCE OF WALES.** Large salmon-pink with primrose throat. Early. Each, 8c; 3 for 20c; 10 for 60c.

**\*G59. PURPLE GLORY.** Deep velvety maroon-red, with almost black blotches. Spike very tall; flowers large and ruffled. Each, 22c; 3 for 50c; 10 for \$1.50.

**\*G61. RICHARD DIENER.** Salmon-rose; light sprinkling of ruby on creamy center. Each, 35c; 3 for 90c; 10 for \$2.70.

**\*G65. ROSE ASH.** Corinthian red, shading into ashes of roses color on the outer edges. Lower petals light yellow, speckled with ruby. Very unusual novelty. Attracts everyone who sees it. Each, 17c; 3 for 40c; 10 for \$1.20.

**\*G67. SOUVENIR.** The "yellowest yellow" yet produced in glads. Extra early, strong growing Prim. Each, 11c; 3 for 25c; 10 for 75c.

**G69. WHITE WONDER.** Large, tall white, sometimes tinged pink. Each, 10c; 3 for 22c; 10 for 65c.

**G71. W. H. PHIPPS.** Flesh-pink, overlaid with light rose-salmon. Often 16 or more of the large blossoms will be open at one time. I consider this the most remarkable glad yet introduced. Large bulbs all sold. But I can supply good blooming size Phipps bulbs  $\frac{3}{8}$ th inch or larger at 75c each; 3 for \$2.00; 10 for \$6.00. (Not over 10 to a customer.)



LONG'S

All Bulbs and Bulblets Priced Prepaid

## The New "Cut and Come Again" Glad, Los Angeles

When I first heard of this new glad I took my stand with Uncle Hiram who saw the giraffe and said: "There just hain't no such animule." At least I "had to be shown" before I'd believe that any gladiolus breeder had originated what we have so long sought—a delightfully different gladiolus that would send up a second, and sometimes even a third, flower spike after the original one had been cut.

As you know, one of the few drawbacks to the gladiolus is that when a spike of bloom is cut that's the end of the blooming for that spike. We often get more than one spike from a bulb but the additional spikes come from additional new formed bulbs, or maybe small side shoots may be thrown out.

But this new Los Angeles glad will do all that other kinds will in that respect, and in addition will usually develop a new and good sized spike from a point above the ground, on the stub of spike left when cutting. The second spike not so large as the first but is not just a small side shoot.

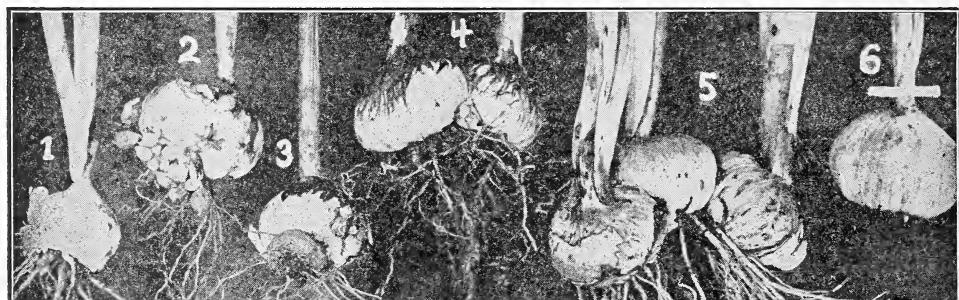
This greatly prolongs the period of blooming. For instance, a dozen or so Los Angeles bulbs will supply blooms for garden display and cutting for a number of weeks. This makes Los Angeles exceedingly desirable and valuable for both landscape work and cut flowers, for home or market.

As a cut flower glad, Los Angeles has taken the florists of Los Angeles and vicinity by storm. This remarkable glad was originated by Mr. C. E. Houdyshell right near Los Angeles, hence its name. It is said that movie stars at Hollywood have taken a great fancy to this new glad.

That brings us to the description of the flower itself which explains, in part, why it is destined to become popular wherever grown and shown. The color is shrimp pink, tinted orange, with orange tinted carmine throat. Plenty flowers open at a time of well built spikes.

This, then, is the Los Angeles glad as it proved in my trial grounds last summer, grown from bulbs I secured from the originator.

Los Angeles made such a hit with me that I arranged for a good supply of bulbs to be sent me by Mr. Houdyshell. These I offer you at originator's own prices: Each, 75c; doz., \$7.50; (half doz. at doz. rate), prepaid. Bulbs will be strong blooming size, over one inch.



**Glad Bulbs and Bulblets As They Look When Dug**

Nos. 1 and 2 grown from bulblets. Note the tiny bulblets clinging to the bulb. No. 3 one large bulb and some bulbets from a bulb planted. Note the old dried bulb at base of new bulb, Nos. 4 and 5 show how we may get 2 or 3 bulbs from one planted. No. 6 shows bulb with the roots, old bulb and bulblets removed. The mark above bulb shows where to cut off stalk—close to bulb.

### **Special Offer Small Bulbs Pink and White Wonder**

Splendid lot of planting size bulbs, averaging larger than No. 6 size. They run from fourth-inch to somewhat larger than half-inch. Not all will bloom this season, but quite a number of them should, under ordinary growing conditions. All will make fine, big, strong blooming bulbs for next year.

Note the low prices. Either Pink Wonder or White Wonder, in this special planting size, at 40 for 50c; 90 for \$1.00; 500 for \$5.00, prepaid.

## Gladiolus Bulbs, "Mrs. F. C. Peters," at Wholesale Prices

As you may know, Mrs. Peters is the outstanding lavender glad of today, that can be bought at anything like these prices. It has been awarded certificates of merit at the big gladiolus shows, and well deserves all the honor given it.

While usually referred to as a lavender, the following description is perhaps more exact: Beautiful shade of rose-lilac with soft crimson blotch, bordered white, on lower petal; edges of petals slightly ruffled; many perfect blossoms open at one time and well placed on strong spike.

Prices are per 100 bulbs, 25 at 100 rate. 1,000 bulbs at 9 times the 100 price. (250 at 1,000 rate.)

No. 1 size (1½ in.) \$16.00. No. 2 (1¼ in.) \$12.00. No. 3 (1 in.) \$8.50. No. 4 (¾ in.) \$5.00. No. 5 (½ in.), \$4.00. All prepaid.

## Wholesale Prices on Bulblets, Mrs. F. C. Peters

Selected, graded bulblets of this grand lavender glad at \$8.00 per 1,000, liberal count. (500 at 1,000 rate).

Smaller but good bulblets, Mrs. Peters, at \$5.00 per 1,000 (500 at 1,000 rate).

**Mrs. Peters Bulblets by Measure.** Will run about 6,000 to quart. Half-pint for \$7.00. Pint for \$13.00. Quart for \$25.00. All prepaid. Write for prices on larger lots.

## Special "Show Me" \$1.00 Peters Collection

Let me demonstrate to you what fine, healthy Peters bulbs and bulblets I'm offering, by sending you, prepaid, for just \$1.00, 8 sure-to-bloom bulbs, mixed sizes from 5-8ths inch up to inch or so, and 16 husky bulblets. Six of these "Show Me" collections for \$5.00. Get busy and take orders for 5 of these collections and get the sixth one without cost to you. Each collection in separate envelope, ready to hand out.

## Special Sale of Fords and Ford "Spare Parts"

Not used, or misused, Fords, but brand new, fresh from the factory—pardon me, I mean fresh from my gardens.

I'm talking about the Henry Ford gladiolus, originated by Richard Diener and introduced by him a few years ago at \$200.00 a bulb.

And by Ford "spare parts" I mean bulblets.

The Henry Ford glad is known as a beautiful dark velvety purple, shaded deeper into center. The plant is thrifty, the spike straight and strong. Blossoms often placed opposite each other instead of all on the same side of the spike. They greet you "coming and going."

The color is so unusual that it adds brightness, variety and interest to any collection. One well grown Ford spike is a bouquet, while half a dozen or so make a sensational display.

I sold most all my large Fords (the sedans and touring cars!) last fall, but have a nice stock of smaller bulbs that will throw excellent spikes of bloom the coming season. The smaller Fords, or "roadsters," will run at least 5-8ths inches in diameter and some larger. These sure-to-bloom Ford bulbs 40c each; 3 for \$1.00; 10 for \$3.00.

**Ford "Spare Parts," or Bulblets.** 100 bulblets for \$4.00; 1,000 for \$30.00. (500 at 1,000 rate.)

**Ford Bulblets by Measure.** They run 5,000 to 6,000 to the quart. Half-pint Ford Bulblets for \$30.00; pint for \$55.00; quart for \$100.00, prepaid.

## More About "Los Angeles," Cut and Come Again Glad

I forgot to tell you that this lovely new glad won two first prizes at the annual show of the American Gladiolus Society held at Rochester, N. Y., last August. Also, that Mr. Chas. E. F. Gersdorff, the well known gladiolus expert at Washington, D. C., grew Los Angeles in his test gardens and rates it: Exhibition, 94; Commercial, 97; Landscape, 98. I'll send you large bulbs at 75c each; 3 for \$2.00; dozen for \$7.50, prepaid.

## *LONG'S* "Long Season" Mixture

Unless you've tried planting small and medium size glad bulbs, you may not know that almost all bulbs half an inch or larger will bloom splendidly. Some varieties bloom from much smaller bulbs than others. Many bulbs even a fourth inch in size will bloom, but bulbs half inch or larger are almost sure to throw good flower spikes.

**Now here's the idea:** The smaller bulbs bloom later than the large ones, of the same variety. Also, some varieties bloom much earlier than others.

**So this is how I make my "Long Season" mixture.** I put in mixed sizes of bulbs, of early, medium and late blooming kinds, so that planted at the same time these bulbs will bloom over a long period. And by using some of the smaller bulbs I can give you a splendid mixture at these prices for mixed sizes, half inch up to inch or so:

25 bulbs (smallest quantity packed), 55c; 50 for \$1.00; 100 for \$1.90.

## *LONG'S* Exhibition Glad Mixture

Something fine. Unlabeled bulbs, of our selection, including some of the old favorites, and some of the newer, more expensive kinds. Many bulbs in the mixture will produce 2 or 3 flower spikes, and as many new bulbs as spikes. This is intended for those who wish something real good, yet do not care to bother picking out certain named varieties and keeping them labeled. Also the price is less than would be if all were kept separate and sent out labeled. Doz., 80c; 25 for \$1.50; 100 for \$5.00.

## Gladiolus Bulblets

These are the "tiny tots" found hanging to base of a bulb when digging in the fall. They vary in size, also in shape. Some are rather long and slim, something like a grain of Jap Rice pop corn, and about as large. Some even smaller. Others are round or nearly so, the average size being not quite so large as an Alaska pea seed.

Bulblets differ from bulbs in that they have **very hard shells**. For this reason they do not germinate so easily as bulbs. The hard shell must be softened, either by soaking a few days before planting or by remaining in real damp soil for weeks after being planted.

Soaking hastens germination and lessens the chances for failure altogether.

Plant bulblets early in spring, as soon as ground warms up somewhat, April being the best time in our locality here. Before planting, soak the bulblets from three days to a week in water that is kept just a little warm, if you can manage to have it so, by keeping the bulblets near the stove or furnace while soaking. Soaking in cold water helps, and is usually practiced, but luke warm water is much more efficient. There's no certain rule as to time the bulblets should be soaked. We used to say a day or two, but I now believe it's better to let them soak nearly a week.

Another, and even better plan, is to let the bulblets dry a day or two in the wind and sun, or near the stove, until the shells are crisp. Then pinch each bulblet until the shell cracks or pops. This permits the moisture to get inside the shell when the bulblets are planted, and germination is practically assured if soil is kept moist.

Soaking several days after cracking the shells, is also helpful. Rolling the bulblet a

little between thumb and finger and pressing gently, is best way to crack the shell. It cracks easier when in a certain position as will be noted when thus pinching the bulblet.

Sow the bulblets, thus prepared, thick in a shallow trench, something like planting peas, but still thicker, 100 to a foot of row being all right, though choice varieties may be given more room. Cover one inch to inch and a half, and be sure to keep soil damp for a few weeks after planting.

After all is said and done, do not expect all bulblets to germinate. They seldom do. If you get half to three-fourths to germinate you are doing well, and will get a good start in young bulbs at a very small cost. The small bulbs produced from these bulblets make ideal bulbs for the next season. Next fall you will get, from the bulblets sown, bulbs all the way from the size of a pea up to an inch or even larger, according to variety, soil, water, cultivation, season, etc.

Bulblets are not supposed to produce blooms, but sometimes they do. Their main job is to manufacture bulbs that should bloom the following year.

## Price of Gladiolus Bulblets

Whatever bulblets I can spare, after reserving for my own planting, are usually sold in the fall only.

But this season I can spare bulblets of a few varieties this winter and early spring. They must be ordered early, because I plant out all unsold bulblets by May 1st.

Please do not order bulblets of any variety not offered, nor order in smaller lots than listed herewith.

## Prices for Bulblets

Carmen Sylvia	40 (or more),	25c
Crimson Glow	75 (or more),	25c
E. J. Shaylor	90 (or more),	25c
Gold	20 (or more),	25c
Henry Ford	9 (or more),	50c
J. A. Carbone	9 (or more),	50c
Jenny Lind	18 (or more),	25c
Jewel	40 (or more),	25c
Mrs. Peters	18 (or more),	25c
Mrs. Douglas	18 (or more),	50c
Pink Wonder	90 (or more),	25c
Rose Ash	80 (or more),	25c
Souvenir	90 (or more),	25c
White Wonder	95 (or more),	25c
Ex. Mixed	125 (or more),	25c

## Bulblets by Measure

Can supply the following glad bulblets in larger lots. They run 4,000 to 6,000 bulblets to the quart.

**E. J. Shaylor.**  $\frac{1}{2}$  pint for \$1.00; pint, \$1.75; quart, \$3.25.

**Jewel.**  $\frac{1}{2}$  pint for \$2.00; pint, \$3.80; quart, \$7.50.

**Pink Wonder.**  $\frac{1}{2}$  pint for \$1.00; pint, \$1.75; quart, \$3.00.

**White Wonder.** Same price as Pink Wonder.

**Souvenir.**  $\frac{1}{2}$  pint for \$1.50; pint, \$2.50; quart, \$4.50.

**Exhibition Mixed.**  $\frac{1}{2}$  pint for \$1.40; pint, \$2.60; quart, \$4.80.

All bulblets prepaid.

## *LONG'S* Shasta Daisy Roots

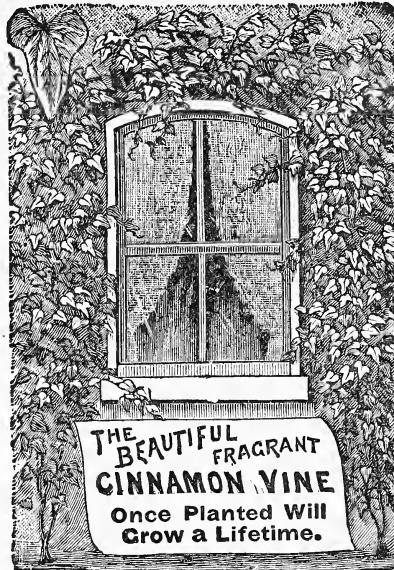
Hardy perennial, blooming nearly all summer, the plant increasing in size and strength for several years, when the large clump then formed may be divided and re-set. 2 for 50c; 5 for \$1.00, prepaid.

## Cinnamon Vine Roots

Hardy, rapid-growing climber, covered with beautiful glossy heart-shaped leaves and a profusion of sweet scented flowers, perfuming the air for a long distance.

Once planted will grow a lifetime. Perfectly hardy, thriving on all soils in sun or shade, wet or dry, doing best in sun and rich soil. No insects or blight trouble this vine; freezing does not harm it. Plant early in April to middle of June, 6 to 8 inches apart. Lay roots flat; cover about 2 inches. Protect by mulching the first winter. Vine dies down each fall, starting again in spring. As the larger roots make the most rapid growth, I offer one size only—especially selected strong roots. 2 for 25c; doz., \$1.25; prepaid.

For Planting and Care of Cinnamon Vine Roots, See Page 62



## Some First Aids for Saving Your Garden

Sent complete  
with  
One Extra Bulb  
for

\$ 100

Postpaid

Spraying Under the Leaves

THE THING LONG NEEDED  
Just what mother was long looking for.

### Little Lenox Sprayer

A handy sprayer, always ready, for use on house plants, small shrubs, rose bushes, etc. Throws spray 6 feet or less, according to pressure of hand. A fine spray may be thrown under, over, or upon the foliage removing dust and destroying insects. Fine for newly sown seeds, also for sprinkling clothes. A small cake of tobacco soap comes with the sprayer, but a larger cake should be ordered also, to have on hand when needed.

### A Good Sprayer

No. 25-D is so constructed that it operates continuously on both the up and down stroke and throws a fine misty spray. Will handle all the usual solutions and is fine for rose bushes, poultry houses, etc., as well as for general garden uses.

Galvanized reservoir; spray caps are made of brass, and other parts durable tin. Built for service. Capacity, one quart. Price, \$1.35, prepaid.

### Sulpho Tobacco Soap

Much used for spraying roses, sweet peas and many other plants. Is a contact spray for lice. 3-oz. cake, 10c; 8-oz. cake, 25c. Add 5c, either size, for mailing.

### "Black Leaf 40"

Get this through your local druggist if you can, as it is not mailable and express is so excessive on so small a package. Hall's Nicotine is also good but not mailable.

### Arsenate of Lead

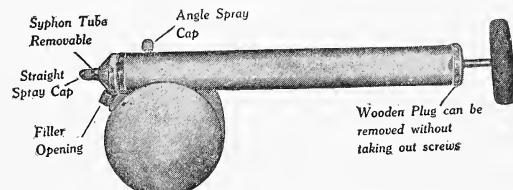
This, also Paris green, can most likely be bought from your local dealer to best advantage, as both not mailable.

### Tobacco Dust

Scatters and drives away bugs on melons, cucumber, etc. Good idea to have this on hand. 2 lbs., 35c; 8 lbs., \$1.00; prepaid within 4th zone.

### Flower City Plant Food

Concentrated fertilizer or plant food especially recommended for house plants. Package, 25c. Add 5 cents if sent by mail.



Sprayer No. 25-D. Price \$1.35, Prepaid.

## SONG'S New Double Hollyhock, "Colorado Sunset"

If you've enjoyed some of our glorious Colorado sunsets, as seen from Boulder or anywhere along the eastern foothills of the Rockies, you can visualize this glorious hollyhock without an elaborate description.

But how can I describe it, with mere words! The general color is that of salmon-apricot, but it varies from this to bronze or copper and sometimes runs lighter than any of these. Several shades may greet you from a single plant. Then again, the color changes from day to day after the blossoms have fully opened, just as a sunset will change, the tendency being to a lighter shade as the blossom grows older. Do not confuse this with a variety sometimes offered as salmon-colored.

You gain a year by planting roots this spring instead of seed. Hollyhocks bloom second year from seed you know.

It's a good idea to plant both roots and seed. The roots frequently live over after blooming one season, but not always. The seed you sow this year will provide a new supply of blooming size roots for next summer. Sow seed from April to July. Plant roots early in spring. April best time.

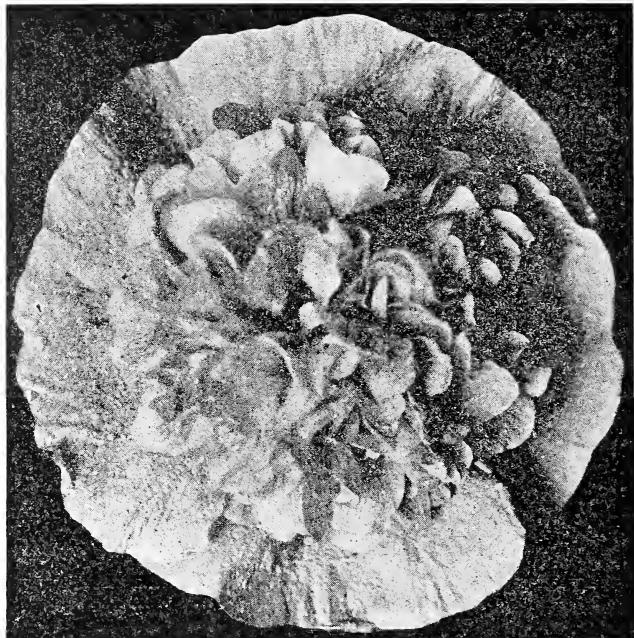
### "Colorado Sunset" Roots

Field grown, blooming size roots, each 35c; 2 for 60c; 5 for \$1.00; 11 for \$2.00; 25 for \$4.00, prepaid.

### Double Hollyhocks Five Other Colors

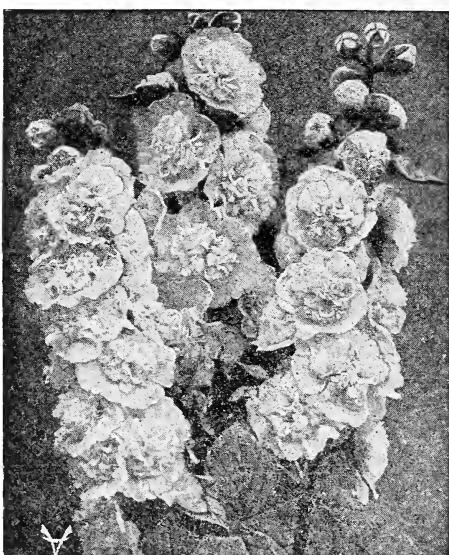
Their double blossoms rival the rose in exquisite color and form.

Bloom second year from seed; first year from roots I sell. Plant roots early for best results. Red, White, Maroon, Newport Pink. 3 roots for 50c; 7 for \$1.00; each color labeled. Mixed colors our selection, not labeled. 10 for \$1.00. All prepaid. Seed, any color, pkt., 10c;  $\frac{1}{4}$  oz., 40c; oz., \$1.20.



### "Colorado Sunset" Seed

For the first time, I have enough seed so can offer in larger quantities than packets. Pkt., 15c; 2 pkts., 25c;  $\frac{1}{4}$  oz., 50c; oz., \$1.50.



### Double Hollyhocks "Rival Roses in Color and Form"

## SONGS SHORT TALKS

Yes, another "loud speaker" catalogue cover. This is my second offense.

The 1925 catalogue, with its loud cover brought home the bacon so satisfactorily that I got the idea maybe the cover did help. You will recall that I said last year I wanted to make the cover so "loud" that you could always hear it when in need of a seed catalogue.

Still, it may have been just a coincidence. You know how it is—we often think we know the cause of success or failure when the fact is results were due to something else altogether. I find this the case with many failures and successes of my customers, as well as with myself.

Then again, maybe the pulling power of the 1925 catalogue was due to that hole we punched in each copy for hanging it up. Have always wondered whether this was worth while or not. Those holes were quite an extra expense, even if we did get them at "holesale rates." Doubt if we will find time to punch holes in these 1926 catalogues. But that was an extra good hole we sent you last season. It ought to last for years. Maybe you can take it out and transplant it into this catalogue. A hammer and ten penny nail might help some.

Speaking further of cause and effect, I've often wondered why it is that I can grow such luxuriant foliage on my chin, while that on top of my head is so thin and spindly. Probably because I exercise my chin more than the top of my head.

Anyhow, it's good to be alive, and greet you again, my "Tried and True" customers and friends.

You who receive my catalogue for the first time are most welcome to join what I like to think of as this family circle. (It's getting to be a mighty big family!) Candidly, I feel that the sooner you send me a trial order the better it will be for both you and me. Take a chance. Columbus took a chance. Just look what he found!

But I keep coming back to that cause and effect problem. Keep wondering just why our business grows and we have so many satisfied and appreciative customers. Wonder sometimes whether it is because of my policy or in spite of it.

One thing I do know—it is that you, my customers and friends (I like to to think of every customer as a friend) have done a lot in the way of telling others about Long's seeds, plants and bulbs, and my way of doing business. And you've boosted instead of knocked. Believe me, I appreciate this very much, and hope I'll never disappoint you or the new customers you have thus sent me.

Years ago in the one room white schoolhouse on the prairies of northern Iowa, I spoiled many a sheet of paper copying that slogan, "Honesty Is the Best Policy." Whoever started that said an earful all right.

Guess I'm about as honest as most folks. Hope so. But I don't deserve any bouquets on that account. I'd be honest in business even if I didn't like being so. It's simply good business and sure pays in the "Long" run.

I'll never forget the sister up in Montana who sent me a 25-cent order with M. O. enclosed, for pansy seed. The seed was enclosed with catalogue she asked for also but it must have slipped out, for she reported some weeks later that it had never come. Said she had written to the Boulder post-office and found out that I had cashed the M. O. Said she had caught me red handed, or words to that effect, and unless I came across right suddenly she would report me

to the postal authorities. I wonder why in Sam Hill didn't she drop me a line before going through all that anguish, suspense and expense. Maybe I'm to blame for not having said anything much heretofore about being honest, both because I was brought up that way and because it really is the best policy.

### "Thanks for Them Kind Words"

I wish you could see the stacks of letters I receive every year from satisfied and appreciative customers.

This is a busy world. Most of us are undertaking really more than we have time to do, and allow us a little needed recreation. For this reason I appreciate all the more these letters, written by busy people all over the United States and Canada. Some tell me how pleased they are with seeds, plants, or bulbs. Others are so surprised to receive their packages so quickly that they sit right down and write a few lines of thanks. Still others appreciate the prompt and liberal replacements in case of error on our part, or if a customer has unusually bad "luck."

Sometimes I think I'll boil down my catalogue, leaving out these "Short Talks," the "Garden Secrets" and other suggestions as found scattered along from cover to cover. Then comes a letter like one I received from way back east just the other day, thanking me most heartily for the helpful catalogue, and saying I really ought to charge for catalogue. Some folks really do send me money for catalogues to be sent to their friends. Of course I won't stand for that, but I appreciate it ever so much.

I'm ashamed to say that I don't seem to find time to acknowledge all these kind letters at the time, so take this opportunity to thank all of you for your thoughtfulness and help. It sure does help to know that one's efforts to do the square thing, and please, are appreciated. So in the language of the gushing high school girl, I say "Thanks—thanks awfully!"

### We Gave "Sudden Service"

Until the last two years we used to get behind from four days to a week in filling of our mail orders, but last season and the year before we kept right on the heels of the orders, often starting the goods on the way same day order came in.

That's going some, in the rush season, which begins early in March and doesn't let up until last of April.

But we didn't deserve all the credit. Not by any means. You folks who "do your Christmas shopping early" and order your seeds, or part of them at least, in February deserve a rising vote of thanks, not just from us but from the customers who order later, during the rush and crush that is on when spring comes and that gardening urge or fever becomes epidemic and every gardener wants "Sudden Service" in filling of orders.

Now that's fine. Keep it up. Order early, all of you who can. It's good for you, and it helps keep everybody happy. But don't get panicky if you do forget to order early. Send us your order and the postman will most likely surprise you by delivering the package before you hoped it could possibly arrive.

### Credit To Whom Credit Is Due

Something tells me I've sort of swelled up and become too chesty when talking about the efficient and prompt service we give our mail order customer.

So I'm going to tell you right now that

your gool old Uncle Samuel deserves a big thick slice of credit in this connection.

Here at Boulder we have one of the finest bunches of postoffice people that can be found in the whole service, I'm sure. Always courteous and helpful. Always so interested in helping us send out our catalogues, receive our mail and dispatch the outgoing packages that you'd think they owned stock in the J. D. Long Seed Company. But then, that's the spirit in the office towards others also. They have the right idea.

The fellows who route the outgoing mail say they like to handle our packages, because we wrap them so well and address them so plainly. That's one of our hobbies—to deliver the goods in good order if possible. We weigh each package, figure the postage, and affix precancelled stamps right in our store, so there is no delay at the postoffice. Our packages are in the mail bags, ready to go, within a few minutes after we deliver them to Uncle Sam's place of business.

But that's only part of the story. There must be mighty good service all along the way and at the other end of the line as well, for seldom is a package delayed, and not one in thousands is lost or stolen. Hats off to Uncle Sam and his postal employees!

### I Wonder—Was It a Joke?

About five years ago I was looking over some of the new dahlias in Mr. W. W. Wilmore's gardens, near Denver. As I've told you, Mr. Wilmore has originated some of the finest dahlias now in commerce. He started me in the dahlia business, and we have become great pals.

So I said to him, "Say, why don't you ever name one of your fine new dahlias for me?"

He replied that if it would make me happy he'd just do that sometime. On second thought I added, "But look here! I don't want you to name some runt or just fairly good dahlia for me. Make it a good one or none."

Several years went by. Then one day in September—that fall I was laid up in bed nearly two months—came Wilmore with a package of dahlias carefully wrapped. He opened the package in my room and said, "Well, here's your namesake! I'm going to name this new dahlia, J. D. Long."

Say, I began to gain from that hour! Sure did me good to see that bouquet of J. D. Long dahlias.

Very solemnly then Mr. Wilmore looked at the dahlias as he held them up, and said, "Yes, I consider this a very good dahlia. It has many good points, and no faults."

Now how do you suppose I felt? Knowing this man, J. D. Long, as well as I do I wondered why a dahlia "with many good points and no faults" should be named for him. Was it just one of Wilmore's subtle jokes?

Anyhow, it really is a good dahlia. Not small, and not of the cabbage head type. But the combination of autumn colors is glorious. The stems are of good length and hold the blossoms up remarkably well. When cut it keeps better than many other kinds.

That reminds me, I almost forgot to tell you that at the annual dahlia show in Denver last fall one of the sensations of the show was a large table filled with just this one variety, J. D. Long. Mr. Scott Wilmore (son of W. W.) came to my rescue and staged the display with these dahlias, cut from the patch of which you see one corner on page 35. I did not enter these for prize, but was well repaid with favorable comments of visitors and in the Denver newspapers.

### Better Than Monkey Glands

"I see by the papers" that one Voronoff, transplanter of monkey glands into human bodies, will establish a farm (we'd call it a ranch out here—a "monkey ranch") for breeding monkeys at the Mediterranean's edge near Nice. Personally, I don't think that's nice even if it is near Nice.

However, I don't claim to know much about this monkey business. But I do feel that a man who is chasing after monkey glands to prolong his days and usefulness—or uselessness, as the case may be—might do well to consider gardening—especially flower gardening—as a hobby.

It's surprising and mighty gratifying to note the joy and health that rewards a person who gets really interested and enthusiastic over digging in the soil and growing vegetables or flowers, or both. Eating the vegetables right fresh from the garden, in itself helps a lot. And when a man or woman, once becomes a flower fa.a, mental and physical ills have mighty slim pickin's.

And, as Josiah Allen would say, "Just think uv the cheapness on it", compared with monkey glands, even if enough glands to go around!

### You Can Climb Trees, Too!

Dad was telling the young son a bedtime story.

" . . . And the hungry alligator crept up behind the turtle, its jaws wide open and dripping. But just about as it was to feast, the turtle made a spring, scuttled up a tree, and—"

"Why, daddy," exclaimed the young son in surprise, "turtles can't climb trees!"

"Can't, eh?" asked Dad. "Why—why, great guns! son, this one had to!"

I was brought up on the prairie in northern Iowa (near Mason City). The only trees we had around our farm began life about the time I did. We grew up together—those fruit trees, poplars, willows, and I—so that by the time they were strong enough for a boy to climb I was no longer a boy caring to climb.

So up to this day I doubt if I could step out casually and climb a tree. But I do have faith to believe that if the emergency should ever arise making it not only expedient but imperative that I should shin up a tree I'd be sitting on one of the topmost boughs at the critical or psychological moment, not knowing, perhaps, just how I did get there.

This for the reason that I've seen it demonstrated time and again that we all can do what is deemed the impossible at times. We have hidden or dormant power, strength, wisdom, that at times enables us to "do the things that can't be done." Call it what you will. I don't want to get out beyond my depth, so will not discuss the subconscious mind, psychology, will, imagination and the like, but in plain everyday words will say we don't appreciate fully our personal resources and possibilities. We can do things when the time comes and occasion demands, that we little dream we are capable of doing.

Yes, old stuff. But this turtle story made me grin, and at the same time reminded me of some trees and greased poles I've actually climbed in matters of health, finance, etc. It just sort of pepped me up a bit as well, to be thus reminded, for there'll be more trees to climb from time to time. So I've just passed this on to you, trusting you may get a kick out of it yourself.

By the way, I'm writing this January 1st,

Happy New Year! Here's hoping that if you just have to climb a tree you can do as well as Dad's turtle!

## Peonies—Lots of 'em—Next Fall

For some years I've preached fall planting of peonies. Now my customers fall for fall planting of this popular flower.

My sales of peony roots last fall amounted to more than my total peony sales for five years before. I was surprised and pleased to receive so many peony and iris orders from my fall catalogue offers.

All my unsold peony roots and nearly all the iris were planted last fall so that I'm not listing even one peony this spring. And only six kinds of iris are available for delivery this spring. But just watch for my offers next fall! I'll have a nice assortment of peonies, and many new and noteworthy varieties of iris. Prices will be lower on many of these also.

The chances are I shall not list peonies in spring any more, because they do so much better if planted in the fall. That's when I and other large growers plant our own.

The iris does best if planted in fall, but is so hard to discourage that it will grow and thrive at least fairly well no matter when it is moved. But fall is the best, September being just fine for setting out the iris. It gets established with new roots before winter and by spring is "arin' to go."

## That Geranium Joke

For some months there's been a joke going the rounds of the magazines, something like this:

Lady visitor in Washington, D. C.: "I called to see the Secretary of Agriculture."

"What do you wish to see him about?"

"About a geranium of mine that's not doing well."

Of course I smiled when I read this, but, after all, what's so funny about it?

To me there's one thing still funnier, and that's for people to write and ask me to tell all about what's the matter with their geraniums and a thousand and one other things.

I'll just bet that the Secretary of Agriculture has a lot more spare time than I have. Anyhow, that's his job, or the job of his department, and of the State Agricultural Colleges and County Agents.

My job is growing seeds, plants, bulbs, roots, etc., and looking after the selling and delivery to you of these goods. If you don't believe it's some job, just come and try it a while.

For good measure, and good luck, I do try to do more than deliver the goods. As you will find, a few pages farther along, as well as throughout the catalogue, I've contributed about a third of the space in this catalogue to informal, helpful talks that will aid you in getting more pleasure and profit from your garden. Honestly, I think that's doing pretty well. Many seedsmen tell me I could increase our volume of sales a great deal by using this space for more illustrations and better descriptions, in detail, of all that's listed in this catalogue.

Now I'm satisfied as it is, if you are. But the trouble is many of you don't seem to be satisfied, even after I've explained the situation as I have on page 50. I keep getting inquiries that should be directed to the Secretary of Agriculture, Agricultural Colleges or County Agents. I do not have time to give these the needed attention, yet will seem discourteous by not replying to these inquiries. I ask your kind cooperation in this matter. "My heart's in the right place" but my days are only 24 hours long.

## Canadians Great Flower Lovers

If someone had told me, when I began in such a small way nearly 20 years ago to sell seeds by mail that by this time I'd have customers not only in every state in our own country, but many in Canada also, I would have deemed this as impossible as that boy thought about the turtle climbing the tree, mentioned elsewhere in these Short Talks.

But I now have a mighty nice lot of customers in Canada. These neighbors of ours are not only good gardeners, but seem especially fond of flowers and of beautifying their homes and communities. I sell them lots of the newer gladioli that are originated in our country. The best is good enough for them, as the saying goes.

## "Bedtime Story"

One night early in February, when it was so stormy no one wanted to go to the movies, a family back in Michigan decided to make up their seed order and send it early, to avoid the rush.

So the order was made out and mailed the next day. In appreciation of the nice order and especially because it came so early when the clerks had plenty of time to put up the order, this firm slipped in several packets of seed not on the order.

One packet was labeled "Hit or Miss" Flower Seeds. Another good name for this might have been "Surprise" or "Guess and Guess Again." Anyhow a small bed was specially prepared and the "Hit or Miss" seeds sown in it along about the first of May, after the ground had warmed up and was just dry enough to work nicely.

From the time the first tiny plants began to show, this bed was watched more than any other. But the real fun started when blossoms began to appear. Nearly every morning for a long time something new and unexpected would greet the family as they rushed out eagerly to see this bed. And so the flowers lived happily until Jack Frost came, and the family lived happily ever after, ordering seeds, plants and bulbs every February from—that "Long" man at Boulder!

## Why They're "Best for You"

Boulder—"Beautiful Boulder"—is located just at the foot of the mountains, one mile above sea level. Mountains to the west; rich farm lands to the east, north and south.

High altitude grown seeds are equal to seeds grown much farther north in lower altitudes. Northern grown seeds are always sought for, as you know. There's a reason.

Seeds, bulbs and plants grown here, or that do well here, will do splendidly in your section. This has been demonstrated, times without number.

Some time I'm going to tell you a lot more about Colorado as an agricultural state. You'll be surprised to learn that we surpass many other states in this line. Sure, we have the mountain scenery, bright sunshine, light, invigorating air, also, and are proud of it!

But we can throw away our national park, glaciers, garden of the gods, petrified forests, coal fields, oil fields, gold and tungsten mines, mountain peaks, whole mountain ranges—and still have more rich farm land than many other states. Colorado is a whaling big state, you know.

The WEST is the great seed producing section in the U. S. Buy western seeds in the west. Sure, why not?

# SOME GARDEN SECRETS

## "What's In a Name"

These garden talks "by any other name would spell the same" results in your garden. I might have used any one of a dozen other titles, but after considering them all, decided on Some Garden Secrets, for two reasons.

**First, to arrest your attention.** Now isn't it a fact that we all prick up our ears and listen in if we think someone is about to spill a secret? Another title might have served as well, and that is, "Confessions of a Gardner." Next to secrets, confessions grip our attention. Guess it's about fifty-fifty with secrets and confessions.

**The second reason** for my choosing Secrets, is the fact that most folks—you and I excepted, of course—but most folks, no sooner learn a secret than they have a burning desire to tell it to some one else.

It is not my purpose to follow any logical order of arrangement of my subjects, or the alphabetical order in mentioning culture of various vegetables and flowers. Instead of beginning with asters, I'm just as likely to tackle zinnias first. Thus I can leave out some things and you may never notice it!

## Not a Filling Station

A seedsman owes a certain amount to his customers in the way of service, and I wish to meet my personal obligation in this connection. But to do so and still remain solvent, I must pay in a wholesale way. What I mean is that I can afford to devote the time and expense required in writing and giving out these pages, the same to all, whereas it would bankrupt me to write each customer personally regarding the problems that might be referred to me.

**Having said my say herewith, I'm done**, for this year at least. I feel that in giving you "Some Garden Secrets" and referring you to an almost unlimited supply within your reach, I have done my bit—and then some. I cannot give additional time to answer, personally, questions that are often referred to me, though I should like to do so. My store and gardens are at your service, and demand so much of my time and attention that my office is not a filling station, dispensing garden lore—or "free air."

## Backward, Turn Backward!

"Bredern and sistern," said the colored pastor. "I'se a gwinne to dewide disyer discose into two parts. Fust, all dat am in de text; second, all dat am not in de text. And now I'se a gwinne fer to wrassle wid de second part fust." That's about my own plan, as you will see.

**For my "Firstly," I'll talk about fall gardening**—things that are not often included in the text or discourse on gardening—things you should have done last fall—things that are too often left undone, much to the detriment and inefficiency of your garden. Would that we might bribe Time to turn backward and give you a chance to do that fall garden work so as to reap the benefit this coming season.

**I take this subject up right here**, lest it might be crowded out if left for its natural place—at the end of the list of the year's work. I deem it so important that it should be considered even if many other things are slighted. All right, forget last fall, but plan for next fall. And don't you forget it!

**Now for this fall garden work:** First,

the garden should be thoroughly cleaned up. Right now, in the fall is when you should wage war against garden pests that have designs on your next season's garden. Late in the fall, before ground freezes, go over everything, including the ragged edges along the fences, in the alley, etc. Sort out the trash, dead vines and plants. Save the coarsest for covering pansy beds and protecting other perennials that may need it. Pile up the rest and burn it. Still better, spread the trash over such portions as may have been neglected and have invited garden pests to take furnished apartments for the winter. About the time that fire gets started, Pa and Ma Bean Bug will think it has been a mighty short winter. Other pests will view with alarm the sudden rise of temperature.

**Leaves and trash** that do not seem to harbor pests, may be saved for turning under to add humus to the soil. Right now is the time to rustle some stable manure for the garden. Yes, I know it is getting harder each year to secure this much needed item for your garden, but in most localities there is still enough for the wise ones who go after it in time—before the spring rush, when everybody begins to think gardening. Get the manure in fall, because it is easier to obtain then, when few are in the market for fertilizer. A still more important reason for "shopping early" is that the manure plowed or spaded under in the fall will do your crop more good than if applied in the spring; especially if the manure is coarse, or fresh. Coarse manure is often better than fine, for the reason it contributes much needed humus to the soil. Fresh manure will not burn your spring plants if applied the fall before.

**Now then, having cleaned up the garden**, secured the fertilizer and spread it evenly, breaking any lumps as fine as possible, get busy and plow or spade the soil to a good depth. But do not pulverize it as you would in the spring. Break up the largest lumps, if any, but leave the top soil rather rough, to avoid blowing away. Don't worry about the lumps. Nature will pulverize them. That's her job, but she wants you to do this preliminary work. Moisture, alternate freezing and thawing will put the soil in better shape—if exposed by fall plowing—than you can beat it into by main strength and awkwardness. Sure, you will have to put on the finishing touches in the spring.

**This late fall upheaval** of the garden does more than put it in shape for Nature's pulverizing and mellowing work. It exposes many of the pestiferous garden pests in various stages of their development and knocks their plans galley-west. Don't forget the outlying districts—the corners, along the fences, etc. Go after these pests. Treat 'em rough.

**Hold on!**—don't put up the shovel and the hoe just yet. There's a right smart of planting that can be done better in the fall than in the spring, and some that must be done in the fall only. That which must be done in fall only is planting of what are known as fall bulbs, or Dutch bulbs, as mostly grown in Holland. These are the lovely tulips, hyacinths, narcissus, crocus. Nothing doing in spring for these. Must be planted in the fall. Nature says so.

## Tools and Their Use

While wheel hoes, seeders, etc., are very helpful in the small garden and almost indispensable for extensive operations, yet for the ordinary home garden not a great many tools are needed, and some of these can be made by yourself.

You should have a good medium-size hoe and rake, strong spading fork, small but strong garden trowel. A three-prong cultivator with long handle is a very valuable tool. These are made with five prongs or teeth also, but three will pull easier and do a lot of work in a short time. With this tool you back up and pull the cultivator towards you, giving the soil an ideal treatment, and leaving it loose and mellow, with no foot prints to pack the soil. The trowel comes handy in many ways, for transplanting and digging around in close quarters. For still finer work, get a common putty knife, one with blade running through the handle and riveted to it. You'll be surprised how often this knife can be used for weeding, thinning, and stirring the soil between small plants. Saves a lot of time and does the work better than could be done otherwise, in many instances.

Such tools as markers, levelers, etc., you can make as needed. A piece of 4x4 two feet long with stick nailed to it for handle makes a good leveler. A 2x4, 12 to 18 inches long, with laths nailed to it for teeth, projecting half an inch, serves as a marker for making little trenches across the beds for fine seeds. The lath can be spaced as far apart as you wish the tiny rows. I use such a home-made tool for marking out my pansy beds. Laths are nailed flat against the 2x4 and about 2 inches apart, so by drawing it across the bed it makes 5 rows at a time. Most anything will do for a handle, as there is no strain put upon the tool in use.

Plowing the garden saves hand work, but there are always some corners that should be dug up with the spading fork. A fork is much better than a shovel, and requires much less man power. Whether the garden is plowed or spaded, the ground should be broken up fine right then and there. Smash the lumps with vigorous strokes with the fork as the soil is turned over. Here's a case where "a stitch in time saves nine." Follow right up with the rake and pulverize as deep as the teeth will go, especially if for small seeds. For large seeds, such as peas, beans and corn, less vigorous treatment is required. This immediate pulverizing of soil is for spring treatment, not for fall. Leave the fall spading or plowing rather rough, as mentioned elsewhere.

Few people know how to use a garden rake to best advantage. If there are lumps and clods, many gardeners will rake mostly towards themselves and accumulate most the lumps at their feet, and leave many more just under the surface. A rake should be worked full capacity both going and coming. Push it deeply into the soil, both ways. Strike the clods smart, quick blows with the rake teeth and you will be able to annihilate the whole works, and leave the bed with fine soil several inches deep—just the ideal seed bed. Then again, the rake can be used instead of the hoe many times. Try raking many kinds of plants when small, by pulling the rake right across the rows. You may kill some plants, but usually they need thinning anyhow. This stirs the soil right where cultivation does the most good at this stage. Keep the rake busy also trimming up rough places from time to time. It gives the garden a tidy appearance, as well as helps prevent baking and packing of the ground.

As the plants grow larger, use the hoe and three-tooth cultivator more, keeping the soil good and mellow and making it decidedly uncomfortable for the weeds. At times, try taking off all but one tooth of the cultivator for close work that might otherwise have to be done down on your knees. It's surprising how much execution can be done with a very small tool if kept in motion.

## To Grow Stunning Zinnias

There, I said I might tackle zinnias first. I've sort of got zinnias on the brain, I guess. Anyhow, I'm crazy about them, since we have now the new monster varieties in such dazzling and stunning colors. In fact, they are all the rage now, these wonderful zinnias. And it's no wonder! Day after day I hear the same exclamations from visitors to my gardens: "Why, I never saw such zinnias! Honestly, are those really zinnias? Well, well, I've got to have some myself next year!" These zinnias are thrillers, all right.

The splendid thing about this is that you yourself can grow them just as fine as I can. It's easy if you know how. And you'll know how in just another minute. All I do is to use the best seed the world produces, of the Colossal and Dahlia Flowered strains. Plant right out in the open garden about ten days before I think the last spring frost will come. But I'm getting ahead of my story. I should have begun by saying I select location exposed to sun all day if possible. Zinnias are sun worshippers. Then I sure do give that ground a heavy dressing of manure before plowing. Fall is best, but spring will do. Seems like zinnias will stand almost any amount of manure, if well mixed with the soil.

I plant in rows about two feet apart, covering the seed  $\frac{1}{4}$  inch, then keep the ground moist until plants show up. Begin cultivating soon and keep it up until plants half grown. Thin the plants to nearly a foot apart in row. Transplant if needed elsewhere. Very easy to transplant.

One thing more. I give them lots of water, alternating irrigation and cultivation. Use either overhead sprinkling system or ditches along the rows. That's all—except to enjoy the sight when they bloom, and see others do the same. I sell a good many as cut flowers. They keep branching out and throwing out new flower stems and blossoms, so you hardly miss a lot you may cut. Have a customer in Denver who makes a bunch of money selling these zinnias to customers who call for them at his garden. Size of plants and flowers can be increased by a top dressing of manure after plants a foot high or so. Pulverized sheep manure is fine for this.

## Use Hoe More, Hose Less

We who have city water, or ditch water at our beck and call, are apt to use too much water and neglect cultivation. When seeds are germinating and while plants still very small it is fine to give a light spray often. But after the plants get well started then we should give heavier waterings, and fewer of them, cultivating between irrigations, and depending more on cultivation and a dust mulch for moisture. Too much water tends to pack and sour the soil. Light and frequent sprinkling encourages the roots to stay near the surface, instead of going down deeper and finding more plant food, also fortifying themselves against possible drought or neglect later.

## How to Grow Beautiful Flowers from Seed

By observing these general suggestions you will be able to grow the different kinds of flowers, even though I do not give cultural directions in connection with each number on my list. Read this page once a week all season. I've boiled it down; there's a lot worth knowing and practicing in these few lines.

### DO RIGHT THING AT RIGHT TIME

Unless your soil is quite sandy, be very careful about working it when too wet. Take a handful and squeeze it into a ball. If it fails to crumble when pulled apart, then it is fine for making marbles or 'dobe bricks, but too wet for working. Lay off until it dries out a bit more. You will gain in the long run. Some soils will not get over such handling, the rest of the season. You may work it down apparently fine, but there will be small lumps that will not pack well around the seed. Many times such soil will let the air in to the seed, dry it out and prevent germination.

### PREPARED THE SEED BED

Next to securing the best of seeds is the matter of preparing the soil at the right time and in the right way. Every year I tell you to plow or spade up your gardens in the fall, leaving the ground rough so that Nature can work all winter for you, freezing and thawing the clods and making the ground mellow and fine for spring. Late fall plowing will also put a finish to many insect pests. I note that few people do this, but that's your loss.

You must have the surface fine and mellow to get best results, especially for fine seeds. After spading, use the rake vigorously and don't quit until you have the top soil as fine as possible.

For convenience in sowing, cultivating and picking the flowers, I like to lay off my gardens in beds about four feet wide, working from the paths and not tramping between the rows in the beds.

### SOWING THE SEED

The finer the seed the shallower it should be covered. Petunia and other very fine seeds should be barely covered, other seeds that are larger should have one-fourth of an inch of soil over them, while the still larger seeds like nasturtiums and sweet peas may go down one to two inches. In this and all other work in your garden just use common sense. Imagine yourself one of the seeds and think how you would like to be treated. For extra early plants you may start the seed indoors, but for most things I prefer to wait until they can be sown in the open. I prefer the hardy, husky, outdoor-grown plants.

### GERMINATING THE SEED

The smaller the seeds and the shallower they are sown the greater the danger of the light covering of soil drying out before the tiny roots get a good foothold in the ground below. Here's just where many people fail and then blame the seed and seedsman who supplied it. As a matter of fact, seeds retain their vitality for years and it is indeed seldom that failure to germinate is due to poor seed. You must neither cover the small seeds too deep nor let them dry out a single hour if covered shallow. On the other hand, you can prevent germination by flooding and keeping soil excessively wet.

Now here's a secret! After sowing and covering fine seeds very shallow, spread a thin layer of excelsior, torn to shreds, or coarse hay or straw over the bed, holding it in place with poultry netting well staked down. Or if the netting is not at hand use brush,

cornstalks, or anything that will not smother the plants. Burlap may also be used in place of the excelsior. This prevents wind blowing the soil and seed away, and prevents seed from being floated into piles when watering the beds, and keeps the soil from drying out. As soon as the plants show up, then remove the covering.

It took me a number of years to discover that many of my failures with small seeds were due to my not getting them covered, and to slight neglect, just at a critical stage, which allowed the soil to become dry, killing the tiny roots just starting.

This drying out is a serious matter and I can't say too much in trying to impress on you its importance. You see, at best, the tiny roots from small seed are very close to the surface. Just the least dryness, and it's good night for them. That's why I advise the excelsior, burlap or cheese-cloth covering.

I used to sow pansy, aster and other small seeds on top of bed and rake them in—or try to rake them in. Now I either sift a thin layer of fine soil or sand, or the two mixed, over the seed, or, more often, I make shallow trenches with a stick or marker, sow the seed in them and cover. Sometimes I make these tiny furrows close together and sow the seed broadcast, then rake it all over gently and evenly. This gives the seed a 50-50 chance of getting covered a suitable depth. And if half the seed germinates the plants will be thick enough.

### CULTIVATING AND WATERING

Weeds are great bluffers. Get after them from the very beginning in a manner that will give them to understand that they might just as well give up the battle first as last. However, weeds are useful, for they keep us digging and scratching around the plants and thus giving the top soil just the treatment it needs, but without them many would forget to keep the soil so thoroughly worked.

Remember that plants need air as well as moisture. Keep the soil loose.

Furthermore, frequent stirring of the soil conserves the moisture and if you will "Use the hoe more" you will need to "Use the hose less." Most people water their plants too much and do not cultivate them enough, and for that reason I have adopted the slogan, "Use the hoe more and the hose less." That's where you have a hose, of course. The same applies to irrigating from a ditch. Dry farmers get good results by using the hoe often. When I say hoe I mean anything from a hairpin to a tractor that will stir the soil. I use a garden rake a great deal in place of a hoe when plants are small. With some plants you can rake right over the rows without injuring the plants. Rows of gladioli from bulbets can be raked until plants are six inches high.

### NOT ALWAYS TRUE TO COLOR

Do not be surprised if flowers planted in separate colors do not all come true to color. There is always a chance of slight mixing in the handling of seeds, with the best of care. Moreover, plants will "sport" at times. That is, they will produce flowers different from any known distinct variety. This is a virtue instead of a fault, for many of our finest varieties came by chance in just this way, the grand Giant Spencer sweet peas being a notable example. The new red sunflower, which originated here at Boulder, is another example. Zinnias do not all come true to color.

## How to Grow Gladioli

The gladiolus is propagated in three ways: By multiplication of the large bulbs, by the tiny bulblets that are found around base of bulbs when digging, and by saving seed that sometimes develops on top of the spike. Stock from bulbs and bulblets comes true to the original, but seed does not. Growing from seed is slow and somewhat difficult, taking several years to get blooms, so I shall consider the first two ways only in this limited space. Gladioli do not mix from growing near other varieties.

### WHERE, WHEN, HOW TO PLANT

Plant in any good garden soil where they will have plenty of sunshine. Don't forget that Glads love sunshine. They do best right out in the vegetable garden, or under same conditions as vegetables are grown. Plant any time from early April until June. Good idea to plant some every two weeks to keep a supply of flowers coming on all summer and fall.

They bloom in about 90 days from planting, depending on variety, vigor of bulbs, depth planted, culture, season, etc.

As I've often said, "Standing room only" is all that Glads require. Mass them in rows or beds, setting the bulbs 4 to 8 inches apart. If in rows, set double or triple rows. Dig trench, set bulbs where wanted, fill trench and job is done.

Cover small bulbs about 3 inches, larger ones 4 to 5 inches. The new bulb is formed on top of the one you plant and if too shallow your flower spikes will blow down. Deep planting saves staking. Hilling up around the plants also helps to prevent blowing over.

Cultivate between rows, and plants in the rows, often, keeping soil loose and porous. Water frequently. Glads like lots of water, but with good cultivating will get along with less water.

### USE GLADS FOR CUT FLOWERS

While Glads make a nice display in the garden, yet they are much more valuable and satisfactory as cut flowers.

Cut them just as soon as the lower blossom opens. Cut stem so as to leave 4 to 6 leaves on the plant to mature the bulb. Place in vase of water and the buds will open from day to day just as they would in the garden. As the lower blossoms fade, pull them off, so as to keep the bouquet looking tidy and cheerful.

Keep watering the Glad beds after flowers are cut or have quit blooming, so as to mature the new bulbs. These do a good part of their growing after flowers appear.

### DIGGING AND STORING THE BULBS

After frost in the fall, dig the bulbs and cut stem off at once about one-fourth inch above bulb.

Save the larger bulblets of such varieties that you care the most for. Do not expose the bulbs to hot sun or frost, but they may dry a day or so in the shade. Hang up in porous bags—a common sugar or burlap bag is very good. Or, use shallow boxes. Store thus in cellar or any place where they will not freeze or get too dry.

### HANDLING THE BULLETS

Before planting remove the old bulb. Plant the bulbs and bulblets separately. Sow bulblets thick in a row like peas, 100 to a foot or two of row—and cover about one inch. Soak bulblets—not bulbs—a day or two before planting. Water should be kept luke warm. Keep them thoroughly wet after planting.

These bulblets will make small bulbs by fall, which, planted again the next spring, will mostly bloom and all should make ideal bulbs for the year after that.

## To Grow Fine Sweet Peas

One secret in growing finest sweet peas is getting them into well-prepared ground rather early in the spring. True, later plantings often do well, but the sweet pea thrives best under rather cool, moist conditions. If given a chance the sweet pea will send its roots way down deep into soil that keeps somewhat cool and moist even in hot weather. But it must get an early start to make this deep root growth. Deep digging and pulverizing of the soil encourages this deep root development.

It is not necessary, however, to break your back digging a ditch deep enough for a water main, though some trenching is good. In doing this, lay aside the top soil, dig and pulverize the subsoil, mixing manure with it, then put back the top soil. Many growers do not fill the trench quite full, but draw the soil to the plants as they come up. But planted on fairly good soil, well-worked up, and on level ground, sweet peas will usually do nicely. A good scheme in either plan is to make a trench say nearly a foot deep right up close to the sweet pea row. Fill this trench with manure. Some soil may be put on top. Then during the season turn water into the trench once a week or so. The enriched water will find its way to the sweet pea roots and stimulate growth. A little bone meal worked into the soil at time of planting is also good. But use this sparingly, as is very strong. Avoid use of fresh poultry manure.

An ounce of seed will sow from 15 to 20 feet of row. Make furrow with hoe, and see that bottom of furrow is rather flat or U shape, instead of V shape. This gives each plant more feeding ground. Cover an inch or little more, firming with the feet if ground not wet. Begin cultivation as soon as plants are up and keep the soil well-loosened as the plants grow. Water by running a small ditch along the row, giving a good soaking once a week or so, rather than just a little every day. But the sprinkling system may of course be used instead. Lice or aphids often check the growth. Watch for them. Spray with contact poison, getting under the leaves, where these pests are most numerous. Remember you can't kill lice by putting poison on the plants. The tobacco or kerosene emulsion must hit the lice to do the work. Dashing the vines several times a day with the hose checks the work of lice. Give the vines support and train them to it, beginning early. Keep blossoms picked. The more you pick them the more and longer they will bloom. To pick sweet peas, grasp the stem close to where it is attached to main branch, push towards, not away from, the branch. It parts easily from branch this way.

## Make a Good Beginning

I don't care whether you run your rows east and west, north and south, or catty wampus, but do make them straight! Really, it doesn't take much more time at all. Keep a strong jute cord handy and run a line when planting. You will, I believe, enjoy working in your garden the more if you make this right start. Don't listen to the fellow who argues that he can grow more in a crooked row than in a straight one, because a crooked row is longer. I'll just bet he will not do it, even if he could, for the fellow that takes pride in his straight rows is also likely to give his garden better care than the crooked row fellow, and will beat him in yield.

## How I Grow Pansies

**In the first place, I use only the best seed,** my Super-Giant strain that I've improved from year to year by careful selection, and adding a little from time to time when I find something extra good offered by some other growers.

**A little shade is good for pansies,** but very much is not. Much shade produces soft, gangling, weak plants and few blossoms. Most all my pansies are grown right out in the open garden, with no shade at all. But good seed alone would not produce the gigantic blossoms to be seen in my gardens. The soil must be rich for best results. Not too much manure, nor too fresh, should be applied, for it might burn the plants or cause them to turn yellow. But if the manure is well mixed with the soil, especially if this is done the fall before, the plants will stand a lot of such fertilizing.

**My own beds for blooming** are almost always set out in the fall. That gives them a big start early the next spring, and produces the long branches and extra large blossoms that we sell as cut flowers for Memorial day. Next best thing is to set them out early in the spring, the earlier the better after ground can be worked. I'm talking now about my outdoor-grown plants, that stay in the open garden all winter with little and sometimes no protection. You could not safely plant the forced, tender, hotbed kind so early.

**Plants may be anywhere from 5 to 12 inches apart,** according to room. My rows are about 20 inches apart and the plants about 6 inches in the rows. Sometimes the plants just about cover the whole space, and are almost "knee high" at their best. This is the result of good seed, rich soil, planting at right time, frequent cultivation, and plenty of water.

**After pansy plants have bloomed luxuriantly for a while in rich soil, and have been maulled over a good deal in picking the flowers, they get tall and ragged, and flowers not so large.** Then I shear off the beds within say an inch and a half of the ground. New sprouts start up at once and in several weeks the beds again begin to bloom, and plants are more compact and sturdy. In picking pansy blossoms I always take part of the branch as well as the stem. Thus the branch, leaves, stem and blossom, make a cut flower one may never have believed possible from a pansy bed. And it doesn't take many such branches to make a nice-sized bouquet. Cut this way, pansies can be used in vases, and last a number of days. Taking the branch, down within two inches of the root, is good for the plant. Others will grow.

**I know of only three pansy pests.** One is a special pansy worm, not numerous, and can be dealt with by hand picking, though arsenate of lead could be used. Lice and red spiders are the other two. Lice can be controlled by frequent spraying with tobacco solutions, mentioned elsewhere. Presence of ladybugs indicates lice. The ladybugs will, if plentiful enough, clean up the lice. Don't kill the ladybugs. Red spiders protect themselves with their fine webs, so it is hard to deal with them. Best method is frequent sharp spraying close to and all over and under the plants, with hose. They can't stand much of that.

**Pansy seed sown outdoors** about middle of April should produce plants that begin to bloom last of June, and continue blooming until ground freezes. Protected a little, as I have suggested, these plants should live over winter and begin blooming early the next

spring. An earlier start may be had by sowing the seed indoors along in March. Takes 12 to 20 days for pansy seed to germinate. Any dryness during this time means failure. See notes on germinating small seeds elsewhere. My favorite time for sowing is August 1st to September 25th. The plants I sell are from such sowings. Many of you may find it more satisfactory to buy the plants at the low price I sell them than to bother trying to grow them yourselves. Practically every customer is pleased with these small, sturdy well-rooted plants, and surprised to see how quickly they establish themselves and get right down to business turning out delightful blossoms.

**Our Boulder climate is milder** than in many places, though we do have real winter at times. Some of my older and stronger pansy plants are just left to rustle for themselves. I don't cover them at all, and they usually come through all right. The smaller ones, from fall-sown seed, I usually cover with excelsior, torn to shreds and spread over the beds just so it hides the ground—simply to prevent soil drying out and thawing out too much, and keep the winds from whipping the plants. This covering is held down by poultry wire well-staked along each side. My beds are 120 feet long and 3 to 4 feet wide. I use the excelsior on the very smallest plants from latest fall sowings. Other beds are covered by throwing the old dahlia and zinnia stalks over them. I'd use brush, too, if I had it. All covering comes off very early in spring, to keep the plants tough. Tops of plants thus wintered are tough and sure look tough at first, but the roots are strong and if the roots are good the tops soon come on fine and dandy. I might explain that the rich soil I mentioned is for permanent beds only. The small plants for spring are grown in ground not very rich, in accordance with my plan to develop strong roots and not force the tops before sending out to be set in your gardens.

## How to Grow Asters

The aster does best when brought to flower late in the season. It comes in after many other flowers have come and gone, and will bloom right up until rather heavy frosts. However, a succession is desirable, and can be had in several ways. By planting seed at intervals of several weeks from March indoors to last of May outdoors, you can prolong the aster season a number of weeks. Planting early and later varieties at the same time will also accomplish this to a considerable extent. My mixtures of various kinds in separate colors and all colors mixed, contain varieties that will not all bloom at once. Royals are medium early. Crego and Asterum and a bit later, and Boulderado Beauties largest and latest of all.

**Asters transplant easily** and may be started indoors, but do very nicely sown outdoors any time after early April. They stand quite a little cold. Read about germinating small seed elsewhere. Plants should be set or thinned to 6 to 10 inches in the row, and rows a foot or more apart. Extra rich ground may cause stem rot. Fairly rich ground is good, but should not be given fresh manure. Just good garden cultivation and watering should produce a fine crop, though more or less of the plants may be taken with the blight, for which there seems to be no definite preventative and no cure. A good rule is to plant more than one expects to pull through unharmed, so that after some may drop out during the season you will still have a good supply left.

## Some Dahlia Secrets

Dahlias are propagated in three ways. The most common method is by planting a bulb—correctly speaking, a tuber. This tuber produces a large plant with as many stalks coming out of the ground as there were live eyes on the tuber. One is best, though two do pretty well. More than two are too many, and any extras should be cut off below the ground. This plant or hill, produces by fall, a clump of tubers, all attached around the base of the stalk. The eyes of these tubers are always close to the end that is attached to the stem. In fact, the eyes are located on the stem or at the junction of tuber and stalk or stem. Nail this fact right now, for it is exceedingly important to know it.

**Never plant the whole clump**, taken up in fall, the following spring, as will produce too many stems, which will be slender and weak and produce weak flowers. Divide the clump by cutting down through the stalk, leaving a portion of the stalk with each tuber, so as to get an eye for it. By keeping the clump damp and warm, in soil or out, the eyes will start to sprout, and then you can see where they are. A tuber without an eye is absolutely worthless. Dividing is a strenuous job, but must be done. Professionals use a large size one-hand pruning shears. Other tools that will help some are chisel, or good butcher knife. A safety razor is not recommended.

**Professional growers get so expert** in dividing tubers that they not only try to get a tuber for each eye, but even divide an eye, getting two plants from one eye. This is done on new and expensive varieties to increase the stock as fast as possible. One could keep on and on, and still find something more to tell about the growing and handling of dahlias. I must not close without cautioning you about handling clumps. If you treat 'em rough, you will injure or break the necks of the tubers. A tuber with a broken neck is about as full of life and pep as you would be with your own neck broken.

**The size of a dahlia tuber fools a good many amateurs.** Most people think they have drawn a prize if they get a great big tuber, whereas such may be all right, or it may be much less valuable than a smaller one. Different varieties vary ever so much as to shape and size of tubers. Some make quite small ones, while others produce large, ill-shaped tubers that are hard to handle in dividing and mean to pack and ship. I had to discontinue one really good kind because some of the tubers were almost as big as my arm. Would have to ship by freight or lose money on them! Even an eye without a tuber will grow and produce a good plant, if handled right.

**That's so. I forgot to tell you** what to do with dahlia tubers when received before time for planting them. If left to lie around they may dry up so much that will not sprout. It's easy enough to keep them in good condition, if given a little attention. If they come packed in moss, save the moss, dampen it a little and keep the tubers wrapped in this moss, examining every week or so, to see that the moss has not dried out. If getting dry, dampen a little more from time to time. If no moss available, just use newspapers, dampening a few layers next to the tubers and wrapping in plenty more to prevent rapid evaporation. No harm is done if the tubers sprout, but just before planting, cut sprouts off within half inch or so of the tuber. Or, if sprout is short and sturdy,

leave it on, planting carefully with sprout up. Weak and spindling sprouts should be clipped off, however.

**Tubers should be planted any time from early April to June.** Takes three weeks for them to come up. May be covered if frost comes after plants are up. If young shoots do freeze, they are not lost. Cut them off at once just above the ground. They will come on again, from tubers.

**Last of April and early May are safest dates here.** Not much is gained by earlier planting. I always wind up my planting the last of June, and usually get by with it very nicely, as my gardens are so located and protected by the nearby mountains that we do not get the first fall frosts. In general, from last of April to June 1st is best. Ground should be dug deep, 10 to 12 inches. Lay the tuber flat—get that? Cover 4 to 5 inches. Hills should be about 2 feet apart in row, and rows 3 feet or so apart. Cultivate, cultivate! Water moderately until buds appear and from that on give lots of water, not frequent light spraying, but good deep soaking once every 5 or 6 days. Shade or excessive fertilizing, or both, tend to produce luxuriant foliage, but fewer blossoms. Just fairly rich ground is O. K.

**In the fall, after killing frost, cut tops off near ground.** Dig very carefully with spading fork, so as to unearth the clump without damaging any of the tubers clinging to base of stalk. Hold the clump in one hand, and tap top or side of the stem to loosen the soil. Soil may be left on, but makes a lot of heavy work. Cut stem once more, this time within inch or little more of where the tubers are attached to it. Lower cutting might leave too many eyes on the discarded stem and too few with the young tubers. If taken up when ground is wet and sticky, a hose may be used to wash the soil out from among the tubers.

**Without further delay—in our dry climate**—take the clumps to a dry cellar or basement, safe from frost. Pack in boxes or barrels. If these not tight, line them with paper. No soil, sand, leaves, etc., needed, though might be used if desired. Watch these clumps during the winter. Must be dry enough not to mould, yet must not dry out and wither. If seem too dry, spread damp newspapers or cloth over tops of barrels or boxes, as often as needed. Keep them away from furnace. However, if do shrivel badly, don't despair, for they may grow anyhow. Divide any time in spring. So much for dahlias from tubers and divisions of tubers. Just a word more. Dahlias do not mix, planted close together. They come true, from tubers.

**The third method of propagation is from cuttings.** This may be done, and usually is, by planting the clump or divided tubers in the greenhouse and taking the young shoots, rooting them and potting, to be set out later in the garden. But you can do this—if you are patient and watchful. When your plant from tuber is a foot high or more, out in your garden, cut out the middle, so as to get two or three pairs of leaves with it, and leave several pairs on the original plant. The plant will throw out new side shoots and take care of itself, making more of a bush than if center not cut out.

**Now pinch off the two bottom leaves** and plant this cutting in any good garden soil, giving shade most of the day for a few weeks. Keep watered and give it time. I have done this and produced plants that bloomed nicely, thus making two dahlias bloom instead of one.

## Garden Strategy

Often we can save work by doing certain things when conditions are most favorable, or thinking a little harder when new problems arise. Cultivating the ground with rake or hoe before a weed shows up may kill millions of them just starting. Thinning plants or weeding the rows when the ground is just moist and soft enough so the plants come out easily saves time and insures a good job. Stirring the soil at just the right time after rain or irrigation conserves the moisture and cheers the plants wonderfully. In short, by working more from the neck up we shall need to work less from the neck down.

**For instance:** In the fall of '21 we dug a lot of Le Marechal Foch and Flora bulbs and bulblets. The bulblets of these new varieties were valuable, so we wanted to save them all. We shoveled dirt, bulblets and all into gunny sacks after removing the bulbs from the rows. Then we washed the bulblets. This usually leaves them nice and clean, and is done in this way: We pour a paiful of bulblets, dirt, gravel and whatever trash may be included, into a wash tub. Then, with a hose, we fill the tub nearly full of water. The lighter trash, such as pieces of gladiolus roots and husks, is then floated off. The tub is again filled with water, and contents stirred or agitated rapidly which causes the bulblets to swim, but the soil and gravel remain in the bottom. Tipping the tub quickly floats off the bulblets into trays with fine wire screen bottoms. Repeating this several times separates all the bulblets, and the job is usually thus completed.

**A new problem arose this time.** It appears that this soil had been the happy hunting grounds of many angle worms. The worms were loath to part with Foch and Flora. In fact they were set on staying with them, through thick and thin. They refused to float off with the light trash, and were equally head strong about remaining with the dirt and gravel in bottom of the tub. Therefore we had to unscramble about two bushels of bulblets and angle worms somehow. We could employ the tedious process of picking out the worms, or picking out the bulblets and leaving the worms.

**What would you have done?** Planned a fishing party, inviting a score of boys, turning them loose to dig for bait in these trays of bulblets? Good! I also thought of that. Not a bad idea. But I thought of another plan. We always keep quite a flock of chickens. Occasionally, not often, they get out and romp on my gardens and my temper. Sez I to myself, sez I: "You fool fowls owe me something. Here's a chance for you to make good." So we spread the contents of the trays out thin and carried the trays into the chicken yard. As anticipated, a big white Blufforpinhorn rooster soon jumped aboard a tray and called out: "Hear ye! Hear ye! First and last call for lunch. Hurry, but don't crowd. Women and children first!"—then, rooster-like, proceeded to gobble up as much of the lunch as possible. The festive board was quickly surrounded. Soon those bulblets were clean, ready to dry and ship.

## Don't Kill the Cops

If Mr. Toad is found in your garden, don't harm him, but treat him as a friend, for he is your friend, arresting and executing garden criminals.

If your sweet peas or pansies seem sick and you find lady bugs on them, don't jump at conclusions. It's lice or aphis that have injured your plants, and the lady bugs are there trying to exterminate these pests.

## Why Is a Weed?

How many times have we wondered why in the world there should be such things as weeds, also insect pests. I'm still wondering about the latter, but have a very firm conviction that the weeds serve a good purpose in one way at least. If weeds didn't grow as they do, the most of us would just naturally neglect the important matter of cultivating our plants. We might say we wouldn't, but I'll just bet we would. Our gardens need frequent stirring of the soil, both between the rows and among the plants, and it is in getting after the weeds, or trying to get the drop on them, that we give our plants this much needed cultivation, letting air in to the roots, putting the food elements, that the soil contains, into such shape that the plants can get hold of and utilize them.

## Don't Kill Big Weeds!

No, I don't mean you should let them remain and go to seed. Don't worry about the weed seed crop for next year. There will be ample of this anyhow. What I mean is, don't ever let the weeds get big. Cut them down, or pull them up, in their tender youth. Funny, isn't it, how we think we are really doing something great when we slaughter large size weeds, but we don't feel half that glow of satisfaction when we kill 'em off when small and when it is so much easier done. But the time to get the weeds is before they take their toll from the soil's fertility. Frequent raking, hoeing and cultivating will get the weeds just as they are sprouting or opening their eyes on a very unfriendly world—for the weeds.

## How to Transplant Weeds

This is easy. It's a natural gift with some gardeners. Simply have the ground wet when you go forth to give the garden the once over. Cut the weeds off well under the roots, but don't scatter them about. Follow the hoe with your feet, packing the recently loosened soil as you go. Then to complete the job, turn the hose on before the soil has had time to dry out well after hoeing. This treatment is practically sure to leave a good stand of weeds, full of life and pep.

## Headwork and Footwork

Headwork is needed in all garden operations. Footwork is valuable at times also. For instance, when sowing and covering seed in rather dry ground, firm the soil well by walking right over the row. This brings the soil in close contact with the seed and prevents further drying out. Often seed will sprout planted this way, whereas if left with only the loose soil over it, would fail to germinate. Use the rake gently over the row after this treading. In transplanting roots, shrubs and trees, it is important to tramp or tamp the soil very firmly.

## Burning Seeds and Bulbs

I know a lot of families who think they just can't afford anything more than the bare necessities for the home garden. They can't figure out an appropriation for a few nice flower seeds and bulbs. They really feel that way about it.

Yet they think nothing of taking a needless spin in the flivver of ten, twenty or fifty miles. Every mile burns up a packet of flower seeds or a gladiolus bulb. "Man has two great ambitions in life. One is to own a home; the other, to own an auto to get away from home." Funny, isn't it? Maybe if said man would go stronger on flowers around said home he might not be so eager to get away from home.

## **Everbearing Strawberries**

Prepare ground thoroughly. Make the soil very rich, if possible. Get true Everbearing plants. Progressive seems to be the best variety for general use. Get plants near enough so will not be in the mails more than a day or two.

**Space the plants 12 to 18 inches apart** in the row, and rows 2 feet or more apart, according to room to spare and whether to be worked by hand or with horse cultivator. Plants should be unpacked immediately upon arrival, and if ground not ready or weather does not permit of planting, don't worry, but heel the plants in, spreading the roots out well so each root comes in contact with the damp soil.

**Before planting, take time to trim** off all leaves and runners, except just several center leaves. Also, clip some off bottom of roots, if this has not already been done. Very early shipments may show little foliage, or none, as may have been taken up before new leaves started.

**Set the plant so the crown is level with the ground.** Avoid burying the crown, yet get all the root under cover. Spread the roots out like a fan, so soil comes in contact with each tiny root. Never jab them in with roots tangled and twisted. Pound or tramp the dirt very firmly about the roots, especially if cannot water at once and frequently. Water each plant as set, if can, and keep them wet thereafter, putting the water on the roots and not the tops, for best results. However, spraying seems to work pretty well also. Anyhow, keep them wet.

**As soon as plants have begun to take hold,** begin to hoe gently about them, being very careful not to disturb the roots. If plant is loosened, tramp it back in solidly. Having started with good healthy plants, the secret of success is to hoe or cultivate often and give them lots of water between cultivations. Another big secret of success is to get your plants in early. Any time in April and even early May will do, but the earlier the better, after ground is ready and can be worked. Even if you lose a few, you will be ahead because those you save will do so much better. It is not necessary to have large roots, as the original roots die anyhow, new roots forming after planting.

**The hill method of culture** is one of the best, where berries only are desired. Keep all runners cut off as fast as they appear. The original plant will produce additional crowns, forming a big bush, with strong fruit stems loaded with berries, under favorable conditions. By this method it is easy to cultivate all around the plant and much hand weeding is obviated.

**The hedge row method** consists of training the runners into the row or close to it, thus making a wide row, yet not allowing the runners to set plants clear across to next rows. This is also very satisfactory. New plants from the runners can be obtained in this way. If plants are wanted in large quantities, let the runners go out farther.

**Keep blossoms picked off** the first season until July to give plants a good start. Fertilizer may be dug into the soil between and around the plants at any time to advantage. Light coat of manure or other mulch is good, put on late in fall, but put very little directly on top of plants.

As to disease, there is little to be done, worth while. Better remove all sick plants. If too bad, start a new bed in new location, using healthy plants.

## **Give as Well as Take**

Be a good sport. Don't expect your garden to do all the giving. Treat the garden to humus and fertilizer, also liberal cultivation, to keep it in good humor. Don't worry too much, though, if unable to obtain barnyard manure, which is very valuable and should be applied at least once in several years if possible.

**But as a matter of fact, the soil is very resourceful** and contains much plant food, even when sometimes apparently worn out. The trouble is, the soil is not in the right mechanical condition to liberate its plant food, or put it in such shape that the plants can get hold of and utilize this food. Thorough plowing or digging over, especially in the fall, and frequent cultivation helps to keep the soil in the desired condition. But what it needs also is loosening and mellowing that comes from incorporating with it the much talked about humus. Humus is most anything in the way of decayed vegetable material. Leaves, straw, lawn clippings, etc., make humus when turned under. They lighten and create the soil, improving it wonderfully for the plants, and making it ever so much easier to handle.

**Much is said about applying well-rotted manure,** and this is all right and good for most anything, but often there is little strength left in such manure. Fresh or coarse manure should be used liberally, especially in the fall. If plenty of water can be had during the growing season, you can use this coarser manure in the spring if well distributed and worked into the ground. In case bulbs are planted in such soil, see that they do not come in direct contact with the manured ground. Simply make the holes or trench large and line with clean soil or sand, covering bulbs an inch or so with same material, finishing with the manured soil. Better avoid planting asters in newly manured ground. Beware using fresh poultry manure, so that it comes very near plants of any kind or their roots. It is very strong and effective after exposed a while or after being mixed with the soil some months in advance of planting, but it will sure burn the plants if fresh and gets close to them.

**Commercial fertilizers are helpful, but lack humus.** Used alone, and repeated for some years, they are bad for the soil. This alone is a chapter too big for me to tackle here. Use some, if you wish, but experiment and watch results. Bone meal is very strong, and good to use, raked into soil before planting, but use sparingly. Your dealer will suggest its uses. I am inclined to think that pulverized sheep manure, to be had dry, in large bags, is one of the best solutions for the small garden. Can be used all season by working it into the soil as a top dressing close to the plants.

**Still another method may be employed** to enrich your garden and keep the soil fit. This is the green manure or soiling method. The idea is to turn under a rank growth of vegetation, preferably peas, as peas gather nitrogen from the air and store it in the ground for use of future crops. The decaying green crop adds humus. If space permits, it is well to plant part of it to some such crop to be turned under. Or, often ground may be vacant for only part the season. Sow something on it and turn the partially grown crop under. Rye is used a good deal also. Don't keep the home fires burning—out in the street, when raking up the leaves in fall. Get them into your garden, held down with damp soil.

## Pester the Pestiferous Garden Pests

Many of these pests come and go—are worse some years than others. We never know just what we may have to deal with before the season is over, but can be pretty sure will have trouble from some of them. So the sensible thing to do is to be ready to combat these undesirable citizens. "Do them as they would do you—but do 'em fust." Have a sprayer ready.

First, we must understand that some pests will eat poison, on plants or put out as bait, while others, known as sucking insects, cannot be poisoned the same way. They must be destroyed by contact poisoning—the dope must be sprayed directly on the insect, and, when done right, gets his goat.

Other remedies or devices are repellants, anything having a vile odor, such as carbolic acid, kerosene, turpentine, etc. Or a substance making an irritating dust, as air-slacked lime, ashes, tobacco dust, will drive the intruders away for a time. The effect of these repellants lasts a short time only and may have to be repeated. Air-slacked lime mixed with flower of sulphur is recommended as one of the best repellants for some things. Fresh poultry manure placed close to but not touching squash plants sometimes halts the bugs. Young chickens running among the vines scare the bugs away.

Then there is physical violence, in which you go to it and pick the bugs off by hand or trap them and destroy them. The hard-shelled squash bugs may be trapped by laying pieces of boards or shingles near the plants at night. The bugs crawl under them and in the morning are sluggish, when may be captured and dealt with according to law! Aster beetles may be hand picked, as generally not a great many at a time. Some use slug shot for aster beetles.

For grasshoppers take 2 lbs. bran or corn meal, mix dry with 1 oz. Paris green or arsenate of lead. Then mix with this 2 tablespoonfuls of molasses and about 1 pint water to which has been added the juice of half a lemon. Mix all together and late in evening sow it very thin, making it into flakes almost like snow. This will prevent poisoning birds or animals. In a day or two you may not see any grasshoppers, dead or alive, and will think they did not take the bait but moved on. Careful search will disclose many dead grasshoppers hidden, for the reason when Mr. Grasshopper gets sick with a pain in his tummy he wants to be alone and drags himself off to some hidden spot.

**Cutworms.** The same mixture is also used for cut worm bait.

Now for spraying. Practically all the insects that trouble our Western gardens, and that can be controlled by spraying, can be handled with only two kinds of dope. For poison spray use arsenate of lead, tablespoon to gallon of water. For sucking insects (lice or aphis) use as a contact poison "Black Leaf 40," one teaspoonful to a gallon of water, or Sulphur-Tobacco soap.

There are other preparations that will accomplish the same ends, but with these two and a good sprayer you can be master of the situation in most cases.

**Kerosene emulsion** may be used in place of Black Leaf 40, also there are other tobacco preparations, soaps, etc., that are good, though the Black Leaf 40 seems to be the most effective. To make kerosene emulsion, dissolve one pound of laundry soap in one gallon soft water and heat to boiling point. Remove from fire and add 2 gallons of kerosene

and stir vigorously. After this is cooled, add 10 parts water to one part the kerosene dope. This may of course be made in smaller lots, just so the proportions are kept about the same.

**Sweet pea lice**, or aphis, should be pestered with contact poison—Black Leaf 40, Sulphur-Tobacco soap. Don't spray with Paris green or arsenate of lead. Dashing the vines with hose discourages the lice.

**Lice on cabbage** may be sprayed with Black Leaf 40 or the kerosene emulsion. Throwing dust on the plants also helps.

**Cabbage worms** may be poisoned by spraying with the arsenate of lead solution until heads are half grown, with no danger of poisoning the heads, as grow from inside. Hot water, almost boiling, may be poured right on to the cabbage plants and will kill insects with which it comes in contact, yet does little or no harm to the cabbage. One gardener says he never fails to drive off cabbage worms by spraying or sprinkling the plants with water in which has been soaked some common tar paper. An experienced Brighton (Colo.) cabbage grower uses one lb. Paris green to 100 lbs. stucco, well mixed and shaken over the plants from a gunny-sack.

**Tiny fleas** that eat turnips, radish, etc., just when they are coming up, may be controlled by shaking air-slacked lime or tobacco dust over the rows from a loose woven gunny sack. Ashes also help some.

**Small striped melon and cucumber bugs** generally give way if plants are dusted with tobacco dust. Good idea to have several pounds handy.

**Corn root worm** can be side-stepped by not planting corn in same place two years in succession.

**This subject is too big** by far for me to more than merely touch upon. Get my 16-cent booklet, "Insects and Diseases." Price 5 cents to customers, or free with a \$3.00 order.

### To Kill Ants in Garden

Select a time when the ants are all at home, holding a family reunion. With sharp stick, make a few holes about 6 inches deep in the ant hill. Pour an ounce or two of carbon bi-sulphide into holes. Cover the hill with an old carpet or a Sunday newspaper. The fumes work downward and do the work. Ants may be kept off of peony buds by sprinkling them (the buds) with common pepper.

### Destroying Squash Bugs

"The squash bugs, like chickens, come home to roost. I found that in the early morning a very small area contained millions of them, so I hit on the plan of killing them with a blue flame gasoline torch, such as electricians use for soldering. In about an hour I killed about 98% of all I had and have not seen a colony in years, and scarcely ever see a single bug. There was no damage to the plants, as the bugs fall on the ground as soon as they feel heat and hear a noise."—H. J. Baldwin, Minnesota.

## Prolong the Melon Season

Plant some Honey Dew melons to eat or sell after other musk melons or cantaloupes are gone. The Honey Dew can be had now in both green and salmon flesh. Both growing in favor from year to year. They can be picked and stored and kept for weeks after the usual "open season" for melons.

## “Beat the Bean Bug”

Briefly, all you need to do is to provide a good sprayer (my \$1.50 sprayer will do for home garden, “Little Lenox” will help some), and some arsenate of lead (half pound or so) and have these on hand before the bugs show up. The full-sized bugs—the advance agents—that lay the eggs, do not, as a rule, do so much harm. Those small woolly fellows that hatch out under the leaves are the ones you need to get after and very suddenly, too.

Therefore, spray **UNDER** the leaves just before these rascals are able to “sit up and take a little nourishment.” Several sprayings may be required. Spraying on tops of leaves is also worth while. Spraying soon as the big bugs come will help some. A bug can’t eat and thrive if leaves all protected with arsenate of lead. Use a tablespoonful to a gallon of water. Keep well stirred or shaken up. Waiting to spray until after vines are riddled is like locking the garage after your Ford is stolen. If you spray at right times early, then you will not need to spray much if any after beans are well set. But the arsenate of lead may be removed from pods before cooking by washing them in water to which has been added some vinegar.

## “In Old Cheyenne”

[By J. D. LONG]

In former days in old Cheyenne, when long horned steers the plains o'er-ran, and cowboys riding up and down, with whoops and yells shot up the town, the lawns as well as streets were bare; to have a garden spot was rare. But now while those exciting ways are kept in mind by Frontier Days, the folks in this historic place are giving weeds a merry chase, and planting flowers everywhere, with tree or shrub set here and there.

Upon the lawns so nice and green, fine pansy beds may now be seen; where rubbish once was left to rot, is seen the blue forget-me-not. Where nothing grew in days of old, blooms now the orange marigold; while scarlet flax and six-weeks stock both thrive beside the hollyhock.

The back yard gardens, too, are fine, and aid a lot when owners dine; they help to cut high living costs from early spring to autumn frosts.

The garden sass that you may raise in health as well as money pays. This “getting better every day” is very good in its own way, but Coue keeps a garden grand and works in it to beat the band. Your Doc will tell you for a fee ‘tis good for you to plant a tree, and hoe, and rake, and putter ‘round; with nature chum on her own ground. He’ll tell you, too, regarding eats, to chew more greens and fewer sweets. So every day in every way you’ll find this plan will surely pay.—Wyoming State Tribune.

**Asters like a little shade.** East side of the house is good. Even north will do, if no additional shade from trees. They also like new ground. Try spading up along the edge of the lawn for asters and other flowers.

## Plant Fall Bulbs In Fall

Tulips, hyacinths, narcissus, crocus, etc., are for fall planting only. Cannot be supplied in spring. That is their season for blooming, after spending the winter in the ground. Ask for special fall bulb list if you do not receive a copy by Sept. 20th.

## How to Grow Cannas

Cannas thrive best in warm climate, sandy soil, full sunshine all day, and with plenty of water. In general, they can be grown very nicely where corn will mature, but in localities with shorter seasons the space and labor might better be given to something else.

Canna bulbs or roots are slow to start, but make rapid growth later on when weather gets warm. The plants do not branch out, so can be planted closer than dahlias. Set the roots as close as 12 inches apart, if you wish. Plant soon as ground warms up, about middle of April to May 1st, or even later. Cover 3 or 4 inches. Frequent cultivation and plenty of water should be given.

After fall frost, cut tops off close to ground, dig and store safe from frost, in somewhat damp cellar. Or, if cellar is dry, sprinkle the roots once in a while during the winter. May be packed in boxes or set on floor. Throwing old sacks or papers over them will prevent drying out. Dirt may be left on or removed. Each spring planted single root makes a clump by fall. These are easily pulled apart the next spring before planting. Any piece with an eye or bud will grow, regardless of size, shape or appearance of roots.

The old small blossomed cannas are fast giving way to the newer, very larger “orchid”-flowering varieties.

## Second Crop Shasta Daisies

If you allow your Shasta daisy blossoms to remain on the plants until they dry up or go to seed you will get but one crop. But cut them soon after blossoms well formed and they will keep on blooming, often until late in the fall.

## Better Than Agreed

There are a number of biennials and perennials that are usually described as blooming the second year from seed, and not thought of as likely to compensate us any the first year. But it is surprising how some of these do bloom the first year also, especially if planted early, and often if not so early. Snap Dragons, Margaret Carnations, Sweet William, Delphinium and many others bloom very nicely the first season from seed sown outdoors. I was surprised to find splendid spikes of blossoms on a bed of Gold Medal Hybrid Delphiniums one fall from seed sown the last of June. Of course they do still better after the first season. As soon as your delphiniums are through blooming, cut the plants off. They will then bloom again the same season.

## Consider Summer Mulching

Down south, and even here in Colorado, summer mulching can be employed to great advantage. This is simply covering the ground with a good thick dressing of straw, hay, or trash, after plants are pretty well grown. This keeps the ground moist, saves much watering, and winds up the season for weeding and cultivating. Understand, this is not to take the place of cultivation while plants are small, but is to be applied along in summer. It is especially desirable for such plants as dahlias, cannas, asters, and all such good-sized plants. Lawn clippings are good, too, as far as they go, but the objection is that you are apt to seed the garden to dandelions at certain times of year. Otherwise, you can’t make better use of the clippings than to strew between the rows in garden.

## PLANT SURGERY

Sometimes plants will be benefited by a minor or major operation, as suggested here-with. I'm not saying this surgical work is absolutely necessary, but have found it helps some in my own gardening.

**Asters.** Even though the seed is sown outdoors where the plants are wanted, you will get longer stems and better blossoms, as a rule, if you take up and transplant the plants. If two or more crowns show on one root, cut or pinch out all but one, before transplanting. Clip the tops of the leaves when transplanting. As soon as the first bud—the center or crown bud—appears, pinch it off. You lose one large blossom with a short stem, but gain by increasing the length of stems and size of blossoms of the main crop.

**Cabbage.** Cut off the tops of leaves—about one-third—when transplanting, unless plants are quite small. Some plants have two crowns. Pinch out one. Some are blind, having no crown. Throw such away.

**Canas.** Divide the clumps that you take up in the fall. A small root will make a good plant and a clump of roots by fall.

**Canterbury Bells.** Pinch or cut off every blossom as soon as it begins to fade. Keep plants watered and cultivated and they will bloom again the same season.

**Cobea Scandens.** When the plants are 4 to 6 inches high, pinch the tops and they will thicken up and make a denser covering.

**Dahlias.** Here's where nerve is required. You may have the mistaken notion that if a small tuber is good then a big one is better and an undivided clump best of all. Absolutely wrong, especially regarding the clump. The clump MUST be divided if you want fine large blossoms. See suggestions elsewhere in "Garden Secrets" for dividing. Don't think you can yank off the tubers and that they will sprout from all parts like a potato. The eyes are all near the stem. Far better throw away the surplus, if do not have room to plant all the divisions, than to plant the whole clump. Better to give them to those who will appreciate and care for them.

To keep dahlia plants low and more bush form, and help to prevent their blowing over, pinch out the top when the first three pairs of leaves are developed. To get largest blossoms keep the plant pruned to only a few branches and then pinch off most of the buds, leaving the terminal one. Buds usually appear three in a cluster. Pinch off the two lower ones, leaving the center or terminal one. To make plants bloom their best late in fall, after the hot weather, cut the plant back within a foot of the ground along in July. New shoots or branches will develop and produce blossoms.

**Daisy, Shasta.** Cut them with long stems and a good deal of the foliage as fast as the blossoms come to full size. They will bloom again, and continue blooming if kept cut.

**Dandelions.** Cut the roots off just a little below the surface, as most people do when trying to rid the lawn of this pest, and the portion of the root left in the ground will make two or more dandelions grow where but one grew before, especially if you don't sow some clover and blue grass where the digging has been done. The grass tends to discourage the ambition of the dandelion root.

**Delphiniums.** Suppose to bloom once in a season, but by cutting them back as soon as they have bloomed you get another crop.

**Gladioli.** In cutting the flowers be sure to leave not less than four leaves to mature the bulb. Better leave six leaves or even more. Keep your glad bouquet looking fresh and cheerful by cutting off the faded blossoms daily, and at the same time cutting

an inch or two off the bottom of the stem. Make this cut on a slant. Change the water daily also. A glad bouquet should last at least a week, if spikes are cut when first blossom opens. Large gladiolus bulbs may be cut into 2 to 4 pieces before planting. Peel off the husk. Cut so as to get a portion of the root surface, also an eye, on each piece. Each piece will make a good flowering plant and a nice new bulb. Dust the cut surface with powdered sulphur. The cutting should be done the same day of planting.

**Grass, Lawn.** Begin cutting the new lawn as soon as the grass is several inches high. Cutting seems to thicken it up. Good plan is to cut often and let the short clippings remain on the lawn. Some of the best lawns I have seen never have the cuttings taken off the whole season through. This mulch also combats the dandelions, especially preventing dandelion seed from getting a start. Will not kill old roots of dandelions.

**Gypsophila.** (Perennial or Baby's Breath.) You can prolong the season of bloom by cutting back some of the plants when they are six inches to a foot high. They come on again, but flower later than those not cut back. Gyp roots may be pruned severely when transplanting.

**Hollyhocks.** In transplanting hollyhock roots, prune them quite a bit. They send out many fine roots from near the cut surfaces. It even benefits roots not transplanted to dig around them in the spring, and shove a spade down so as to cut some of the branching roots. If tops have made much growth before transplanting, then cut back the tops almost to the crown. But don't cut off the blossom shoot if it is showing plainly.

**Iris.** Sooner or later your iris clumps should be dug up and the roots pulled all to pieces and reset. Some cutting may be required, but usually the clumps divide naturally and can be pulled apart. A small division soon makes a good sized blooming clump. That's why the price paid for a root of some new and fine kind proves a valuable investment. Better discard some of the older, less desirable sorts, if room limited, and keep adding some of the newer kinds. Avoid planting iris in same soil that has had iris before. If do not wish to change location of iris bed, then dig out the old soil and put in some new.

**Melons.** If size rather than quantity is wanted, then pinch off all blossoms and small melons but a few. Prune back the vines also. Same with other vine vegetables, such as pumpkins, squash, "cukes," etc.

**Pansies.** Often the tops grow too fast for the roots, if to be transplanted. Don't be afraid to cut or pinch back the tops if they are at all tall and "sprangly." It is not really necessary to keep the blossoms picked for several weeks after setting out the pansy plants, but picking the blossoms and buds closely will give you better plants for later blooming. And when any plants get quite tall and "loopy" and untidy looking, cut them right off to within 2 inches of the ground. Water and cultivate and within two weeks or so you will have blossoms again and better ones than if had not been cut back. If plants turn brown the chances are the red spiders are at work. At first appearance of this, cut back the plants partially at least, so you can get at them from all sides and beneath the foliage with the hose. Give them a good sharp spraying daily and you will beat the spiders in their game.

**Peonies.** The clumps of peonies do not require dividing often, but if taken up the roots should be cut into several parts, each with several eyes. For some reason or other a large peony root seldom makes good when

transplanted. Best results come from small divisions. Largest blossoms can be had by disbudding. Leave only one bud to a stem.

**Petunias.** Make them bushy and sturdy by pinching off the tops when the plants are a few inches high. Or, good size plants may be cut off and new shoots will develop, making a large bush.

**Roses.** The following suggestions I have taken from a helpful book, "How to Grow Roses," published by Conard & Jones, West Grove, Pa. Price \$1.25, prepaid. Better send to this firm and get the book, for it gives many details I have not quoted.

Two and three year old plants should be cut back severely at time of setting out, in spring. Leave only 3 or 4 buds on Hybrid Perpetuals and about 6 on the Teas and Hybrid Teas. Cut stem just above a bud that points out. Pruning determines the size and quality of the flowers.

Hybrid Teas and most other hardy roses should be pruned in March. The tender roses, Teas and Hybrid Teas, need not be pruned until April, when the sap begins to flow and buds begin to swell.

If few but extra large and fine flowers are wanted then cut out to the base all but three to five shoots and cut these back so as to leave only 2 or 3 eyes to the shoot. The more shoots you leave and the longer you leave those that remain, the more flowers you will get, but they will be smaller than if less shoots are allowed to grow and these cut back nearer to the ground. In cutting out shoots, always remove the old ones and leave those of the previous season's growth. This is recognized by its fresher, smoother, and lighter colored appearance than the old wood. The strongest shoots should be saved, and care given to placement of these that will produce a symmetrical bush.

**Sweet Peas.** Plant surgery should be employed daily on your sweet pea vines after they begin blooming. The more you cut the more you have and the longer the season of bloom. Like many other flowers, sweet peas were never intended for stingy folks. The more you cut and give away the more you have, and the longer they keep blooming. Try picking sweet peas without cutting, but instead of pulling the stems away from the stalk, push towards it.

**Swiss Chard.** "Eventually, why not now?" Slowly, many gardeners are learning the value of this plant. As noted elsewhere, Swiss Chard is useful in several ways. It is one of those "cut and come again" vegetables, but instead of cutting off the entire plant you just cut or pull off the outer stalks. New ones keep growing from the center so that a continuous supply of greens may be had all summer and fall, from an early spring sowing. But Swiss Chard may be sown any time until along in July.

**Tomatoes.** If growth is rank it is well to keep the plants pruned back so as to develop larger fruits.

**Thinning.** Don't neglect thinning so as to give each plant enough room to develop well. I don't know of any set rule, for much depends on what is to be thinned. But watch your rows and begin thinning early, leaving the strongest plants. A second thinning may be desirable, or even a third. Often in thinning you can transplant and fill in vacant places. Always water transplanted plants at once.

**Strawberries.** In setting out strawberry plants, cut off the tips of the roots. Many new, fine, hair-like roots will develop on account of this operation. And the tops should also be trimmed back so that just several crown leaves show. If plants are taken up real early in spring, they may yet be dormant, with no green leaves showing. Though apparently dead they do splendidly if set out at this stage, provided the ground does not freeze before they get rooted. Too

much freezing of the ground may cause failure, but mere frosts do no harm to plants wintered in the open with no covering.

**Sunflower.** A neighbor's cow gave me a little interesting demonstration in plant surgery. She reached through my fence and ate off all the leaves and branches of some fine double Chrysanthemum-flowered sunflowers I had planted for display along the north side of my home garden. It looked like a case of "All is lost," but I just let the naked stalks remain and kept them watered and cultivated. They soon sent out new growth at the joints and before fall were fine symmetrical, bushy plants, with many branches loaded with golden double flowers.

In this connection I recall an experience with zinnias, reported me by a good customer, Mr. Samuel Yaggy, at Syracuse, Kansas. He said that when his zinnias were several feet high a hail storm cut them down so just the bare stalks remained. But to his great joy Nature came forward with an armful of spare parts and fitted up those plants so they bloomed gloriously after all. That's one thing about damage from hail—we should never be too sure that all is lost. Often Nature will come to the rescue and save the day.

## Put the Garden to Bed

Here's where you need to "use discretion." In providing winter protection for plants, many gardeners overdo a good thing by applying too much cover. Get the idea, once for all, that the protection is not so much to keep the frost out as to keep it in, and you will have better "luck." It is the drying out of the soil, the alternate freezing and thawing, and the whipping by the winds, that harm our plants in winter. And, strange to say, the danger is greater in our mild Colorado climate than in some much colder sections. This for the reason that where snows come early and remain all winter the snow gives the needed protection.

In our section, we cover raspberry bushes completely with soil, after bending them down as close to the ground as can be done without breaking them. This should be done before the leaves have fallen. Some cover grape vines the same way; others let them rustle for themselves. It is hardly necessary to cover grapes. Strawberry plants usually come through fine with us, with no winter protection, but if you do mulch them with straw or coarse manure, be sure to put most of the covering between the rows and plants and very little, if any, on top of them. A little coarse covering on top is good, but be careful. Don't smother the plants with heavy coat of manure.

**Pansies** usually live over if covered and cared for as suggested in my special instructions for growing pansies, given on another page.

**About all I use** for putting my gardens to bed is excelsior, dahlia and zinnia stalks. Nothing very heating about these, thrown lightly over the beds. Yes, leaves are good for some things, but apt to smother such plants as pansies. I never use them on such small plants. They are all right to work in around rose bushes and other shrubs. Some protect roses by forming a mound of dirt up around each plant, 10 to 12 inches high, just before the ground freezes. Later they may put on a covering of straw or leaves. Or, the latter may be used without the hillng up.

**Be sure to anchor all covering**, if you have winter winds like we do here. By leaving some dirt on the Colossal zinnia roots and turning the root end of the plant west, toward the prevailing winds, these seldom blow off. The excelsior is held in place by poultry wire, well staked down. Where available, pine boughs are excellent, or even brush without foliage will answer for many things. Peonies, iris, gypsophila, need no protection.

## Rotate Your Crops

That is, don't plant same kind on same ground year after year. Different plants take different things from the soil, to some extent. Different pests attack different plants (some living over in location where operated the previous season). Plant root crops where peas and beans were last year. Plant tomatoes where corn was, etc.

## How to Grow Onion Sets

Ordinary sets (bottom sets) are nothing more than regular onions grown so close in the row that they cannot grow to large size. Withholding water also prevents their growing large. The seed is sown in rows, but the rows are made wider, 3 or 4 inches, instead of the usual narrow row. Long experience and judgment are required to produce sets well-matured and of ideal shape, but this is worth experimenting with on a small scale. 80 to 100 lbs. of seed to the acre are used for commercial set growing. For small garden use, an ounce for 25 to 30 feet of row-wide row. Red Wethersfeld is used for growing red sets; Yellow Danvers for yellow, and Silverskin for white. Brown Australian and Mt. Danvers are also good.

## To Make Head Lettuce Head

Use any heading variety I list, although Denver Market and Prize Head seldom make true solid heads. Iceberg and Hanson are fine for home garden, as both can be used as leaf lettuce also. Los Angeles is best for market. Fine for home, too.

Lettuce will seldom head in hot weather, unless grown in shade. It is a cool weather plant, doing best very early in spring, or late in fall, as head lettuce. The cool climate of the mountains is ideal for head lettuce. That's where the carloads are now grown for shipping. This is becoming a big and profitable industry in Colorado.

Sowing head lettuce seed late in fall, just before ground freezes, is one good way to get an early start the next spring. Very early spring sowing—March or early April, is good. Bear in mind that the ground should be good and rich, and that the plants should be thinned or transplanted to 6 to 10 inches apart. Then they should be hoed often, the oftener the better. You can't expect to pluck large solid heads of lettuce from a bed in which the plants are as thick as the proverbial hair on the proverbial dog's back.

## Peony Pointers

Although we might like to buy and plant big clumps and have them bloom freely the first season, yet this is not Nature's way. Plant divisions any time in fall or very early in spring. Fall is best. There is some advantage in planting strong one-year or two-year plants, but larger clumps will be a disappointment. Size of divisions often misleading. A small division from a 2 to 4-year-old plant is often better than a larger one from an older plant. Size of root not so very important either, as new roots are formed. Takes several years for peonies to show true to name blossoms.

Never neglect the peonies after they have bloomed. The care and regular watering you give them after blooming until fall produces, vigorous buds that will insure large and fine flowers the next year. As one peony grower sees it, the roots may be likened to storage batteries, which should be charged after blooming for the next flowering season. Fertilize by spading in manure around but not very close to peony plants. Never let the manure get close to roots or on top of the plants. This is important.

## Doctoring Sick Plants

Do all you can to keep plants healthy, nipping insect attacks in the bud, so to speak, and promoting steady healthy growth by sensible care and cultivation. After a plant gets very sick, you'd better remove and destroy it, than spend much time trying to bring it back. Sure, there may be exceptions.

## Would You Chew Wood?

You'd have a fit if the Missus would serve kindling and twine with your radish, turnips, beets, snap beans, etc. Yet many times these are served old and tough, and full of woody fibre and stringy entanglements. To avoid this, use vegetables when young and tender. To have them so when wanted, plant often. Don't think of planting radish, beets, beans only once. Plant every few weeks and see how nice it is to have them crisp, juicy and tender.

## Iris—The Foolproof Plant

Give the iris half a chance and it will grow and thrive. Roots should be planted very shallow, just so well covered. Plant most any time of year, except when in bloom. Fall is ideal. Early spring is O. K., too. Iris needs only a small amount of water to do splendidly. Will thrive under rather dry and unfavorable conditions. Is a boon to dry farm gardens. A small division will sometimes, not always, bloom first year, and do fine after that. In a few years it produces a large clump which may be divided and reset, making a dozen iris grow where only one grew before.

## Cinnamon Vines for Shade

They make a nice background by training the vines over fences and unsightly objects. By planting the largest size roots and planting them early, the vines will provide more shade the first year than most anything else. And after the first year they do still better. Roots remain right in the ground, so one planting is the total expense and trouble. In very severe climates, it is well to mulch the roots for the winter. Plant the roots nearly a foot apart, laying root flat, and covering about two inches. Use large roots for best results. Unlike a dahlia root, the cinnamon vine root will grow even if broken into several pieces—each piece will grow. Quicker growth is obtained, however, if the terminal eye on small end is retained. Very slow to start. Be patient. Better mulch first winter.

## "Keep the Ball A-Rolling"

The old idea with many folks was to have one big spring gardening spasm, followed by spasmodic cultivation and let it go at that. But now, with garden space so valuable, and produce from the garden so expensive, and also more appreciated when it is fresh, we are learning how to get the greatest efficiency from our gardens.

Companion and succession crops are planned, to use space to best advantage and for as long a portion of the season as possible. Companion crops are early and late maturing kinds grown in alternate rows, so that when the early crop is off the late one may occupy the whole space for balance of the season. For instance, early radish, beets, lettuce, may go between rows of cabbage, tomatoes, squash or melons.

Succession crops are those following each other. The ground used for green onions from sets, radish, lettuce or early peas, may be used after these crops are off for celery, late sweet corn, beans or turnips. Two, three or even four crops of some things may be grown one after the other in a season.

## SONG'S Random Remarks

**Forget it.** You can't expect to cut asparagus from a newly set bed. Should be cut very little, if any, even the second season. That is, if you want a good permanent bed that will deliver the goods. See page 6 of Hand Book.

**Try planting morning glory** and castor bean together. Thin to one plant of each in a hill.

**Tomatoes thrive best in loose soil.** Try digging large hole for each plant, and filling bottom with chopped sods. Avoid tramping ground close to tomato hills. Tomatoes respond to rich soil. They do not require great quantities of water.

**Get most of your peas in early.** Peas do best in cooler part of the season. Beans, however, thrive all summer until killing frosts. Here at Boulder we plant beans up to July 15th, and even as late as Aug. 1st.

**Carrots do not require a great deal of water if well cultivated.** Too much water often causes them to split open and rot. Make sowings up to middle of July for nice tender table carrots.

**You can grow your own cabbage plants** by sowing the seed right outdoors for main fall crop. Sow in April. Thin when small so each plant has room to become sturdy before being set out. If sow seed late, then use an early variety. Nothing better than Copenhagen Market.

**Turnips grow fast.** Sow from early spring to Aug. 1st. About July 15th to 25th is best for main fall or winter crop. Odd corners and ground from which early crops have been removed may be sown to turnips. Be sure to thin them early, if very thick.

**Spinach is a cool weather plant.** Runs to seed in hot weather. That is, the usual kinds do. Try New Zealand for hot weather. Common spinach should be sown very early in spring. Better yet, sow in fall, either in September and let it get a start in fall and winter over, or just before ground freezes, so will come up early in spring.

**Are you growing salsify** (vegetable oyster)? If not, why not? Just fine for soup. Plant April or May. Thin to 2 inches, so as to get fewer roots but larger ones. Small roots are harder to clean and prepare for cooking.

**Cucumbers** grow to beat the band in warm weather. May be planted up to Fourth of July, or even later.

**Ever grow Kohl Rabi?** Take a chance on a nickel package.

**I know a good gardener who plants his melons twice**, whether they need it or not. First planting is made early. If escapes frost, he has an early start. But the second planting is in same rows, but made a week or so later. In case the first planting freezes off, the second one is there all ready to pop through, and comes on earlier than if the patch were replanted after frost. Cost of seed is a small item compared with results from early crop. If both lots escape frost, the late one is hoed out.

**My sales of Swiss chard** are increasing by leaps and bounds, as people learn to appreciate this vegetable. Read about it in catalogue. After serving all the different purposes mentioned there, the roots can be taken up late in fall, transplanted into boxes and put in cellar near window. Will go on growing and providing splendid crop of greens for winter use.

**Table beets** should be planted every few weeks up to middle of July, to supply nice tender young roots as wanted all summer, and for canning. A great big "whopper" beet may be all right for exhibition purposes or to feed cows and chickens, but for table use the beets should be pulled when only partly grown.

**In setting out an asparagus bed**, make the rows 2 to 3 feet apart, and set plants 12 to 15 inches in row. Make a trench so the plants may be set just deep enough that the crowns will come 3 or 4 inches below level of ground. Spread the roots out flat, instead of jabbing them down straight. Fertilize the ground heavily each year between the rows, digging the manure into the soil. Don't waste effort filling deep trench with manure, as the roots do not go down deep. Fertilizer on top will seep down to the spreading roots.

**Cauliflower heads best late in fall.** You can grow your own plants from early-sown seed out in the garden, same as mentioned for cabbage. Tie the cauliflower leaves up to protect the head and keep it white. Do this when head is yet small.

**Everlasting flowers** are very popular now. Great quantities are grown and sold to florists, flower stores and art shops, for basket work and winter bouquets. See additional suggestions in my catalogue.

**Rutabagas** take longer to grow than turnips, so latest planting should be made not later than early July.

**Get the jump on the garden pests** by having a sprayer and several kinds of dope on hand before the pests show up. "A shot in time, saves nine."

**Very early plantings**, when ground is still cold except just on top, should be shallow. If seed gets down too deep in the cold wet ground it may rot. But later, when soil is warmed to a greater depth, you may plant deeper. In this connection it seems reasonable to suppose that we should not plow or spade ground deeply early in spring and plant at once in the soil that has been turned up from below, and has not yet had time to warm up. This is another reason for fall planting. Plow or spade deeply in fall, then give the top shallow spading or cultivating before planting in spring.

**How do you transplant tomato plants?** Do you just cover the portion of the plant that was in the ground before? Set your tomato plants very deep, so that more than half the plant is under ground. Some large and lanky plants should have three-fourths their length under ground. Pinch off all leaves except the few to remain on top of ground. If plants are extra large or tall, lay them on a slant in shallow trench, thus keeping all parts near the warm surface. Tomato plants take root all along any part of plant covered. Tops are not whipped and broken by winds when set this way. Set other plants deep also, just so you don't cover the crowns. Always water them at once, if possible.

**Here's where many gardeners make a mistake:** They think that rich soil is necessary to germinate and start seeds in boxes indoors or in hotbeds. Seeds require just heat and moisture to germinate. Given these conditions they will germinate with or without soil. In trying to make soil very rich for starting plants indoors, one is apt to burn the tiny plants. Use just any fine loose soil at first, and give rich soil after setting out in the garden. That's the principle I work on with my hardened pansy plants. **No manure** is used in the seed beds.

To cut down, or even eliminate entirely, the cost of onion sets, try this: Along in July or August sow a few rows of onion seed, just any kind you like. Let these partly grown onions remain right where they are over winter. Late in fall throw some brush or other coarse covering over them, or mulch with manure between the rows. The onions will start new growth early the next spring and make early green table onions. Even large onions may be left in the ground the same way for green onions the next season. But they will not grow on to make large dry bulbs for the next fall. White Silverskin is fine for this late summer sowing, though Mt. Danvers or any other variety will do also.

Theoretically, if you plant extra early, medium and late varieties of peas at the same time you will have a succession, one variety maturing after an earlier kind has come and gone. But in practice it doesn't always work out this way. Too many are likely to come on at about the same time. Better make some plantings a little later, sowing the extra early ones first. Try Amer (Giant Alaska) planted just as early as the ground can be worked nicely. Then a little later, and when ground is warmed up somewhat, plant Laxtonian or Blue Bantam. In a week or so put in some Dwarf Telephone or Defiance, or some other medium to late varieties.

In very small gardens it is not advisable to use space for squash, pumpkins, or even sweet corn, for there are many other things that will produce much more valuable vegetables on same ground. Let the large gardeners and farmers grow some of these vegetables which require considerable room.

Never plant just one row of corn. No matter how few hills you may have, arrange them in blocks, several hills or more each way, so the ears will stand a better chance of being fertilized. Otherwise the ears may be only partially filled.

Try this for germinating parsnips and other seeds you have had trouble getting to grow. Make a small trench the right depth for whatever seed you are sowing. Nearly an inch deep would be all right for parsnip. Now wet the bottom of trench thoroughly. Sow the seed. Cover as usual, with soil not muddy. Sprinkle the covered row, so covering is well moistened. Either keep row just moist by light sprinkling, or as soon as top dries a little, run over it with the rake to break the crust and make a dust mulch. Running a small furrow next to the seed row, and letting water run down it, is another way of insuring sufficient moisture.

Heavy, stiff clay soils, or, in fact, most any kind, can be loosened and improved by sprinkling a pound of lime to 10 square feet and working it into the soil ten days or more before planting. Do not use lime and manure the same season.

### Some Sources of Supply

For ornamental trees and shrubs, Rockmont Nursery, Boulder, Colo.; Sutherland Nurseries, Boulder, Colo. For fruit trees, berry bushes, etc., Colorado Nursery, Loveland, Colo. For certified Grimm alfalfa seed, ask your dealer to order a supply from Idaho Grimm Alfalfa Growers Association, Blackfoot, Idaho. Or, write this firm asking what seedsman they have supplied. For information regarding any good-sized town and surrounding territory, write to secretary Chamber of Commerce in such towns. Is surprising what a lot of interesting information you can get in this way. Most towns have some such organization that gladly supplies folders, booklets, and answers special inquiries, without obligation to you.

### The Long and Short of It

Mr. J. W. Valentine, a Boulder hardware merchant, enjoys a joke, especially if it's on the other fellow. So one day he handed me this clipping: "An optimist is a man who believes that the seed he plants in his garden will grow and look as good as the picture on the package." This is just one of the many jokes about the great discrepancy between a vegetable or flower as described by the seed man and as produced by the customer.

And it would be funny, too, if it were not so serious. Now listen! You must remember that we seedsmen talk about what can be produced under favorable or ideal conditions. How many seeds are planted and come through the season under such conditions? The object of these Garden Secrets or talks is to help provide such favorable conditions. It's amazing indeed to see what a great difference there is in results from same package of seeds grown under different conditions. In spite of all former experiences along this line I had an illustration in my own garden not long ago that stunned me. It came about in this way:

When sowing some of my Special Mixed aster seed one day in May, I chanced to spill a little of it at the end of a row, and close by a small apple tree stump. The ground was hard, and received little moisture, as was just out of range of my overhead sprinkling pipes. Several seeds germinated and the plants grew—but not so you could notice it very much, as the saying goes. Two of them, a pink and a lavender, actually bloomed. The blossoms were true to type and color, but miniature ones, and the plants less than three inches high. Out in that garden, from the same package of seed, were plants 30 inches tall, with many side branches, all loaded with large blossoms. I just thought, "Now what would a customer think if his asters behaved like the starved, neglected ones near that stump did for me; or, even if they did somewhat better, but failed to come up to my enthusiastic descriptions of these asters as I know them, under favorable conditions?" The tall or long results were out in the garden. The "short of it" were in "No Man's Land."

### What About Roses?

I imagine I hear this question from some of you. I'll say frankly that what I don't know about roses would be mighty interesting and helpful reading. I find, however, several rose catalogues that give considerable space to growing and care of roses. Send for these free catalogues, to addresses as follows: The Dingee & Conard Co., West Grove, Pa.; Geo. H. Peterson, Fair Lawn, N. J.; Conard & Pyle Co., West Grove, Pa. Colorado Nursery, Loveland Colo.; Sutherland Nursery, Boulder, Colo. The De La Mare Co., address on next page, sell several books on roses.

### Farm and Garden Magazines

A good farm or garden magazine, or several of them, will help you still more to "wise up" on these subjects. Hardly know where to begin or leave off in giving a list, as so many good ones. Try any of these: Western Farm Life, Denver, Colo.; Nebraska Farmer, Lincoln, Nebr.; Montana Farmer, Great Falls, Mont.; Nebraska Farm Journal, Omaha, Nebr.; Mail and Breeze, Topeka, Kan.; Wyoming Stockman, Cheyenne, Wyo.; Flower Grower, Calcium, N. Y.; Garden Magazine, Garden City, N. Y.; Better Homes and Gardens, Des Moines, Iowa. Write any of these publishers for their prices.

## Free Government Bulletins

Read every word regarding how to get these bulletins, and avoid disappointment. Don't send to me. I cannot supply them.

There are two ways to get these bulletins free; and one way to get them at 5c each, in case free lot is exhausted.

Bulletins will be sent you free (not over 10 to one person) by the Department of Agriculture, Division of Publications, Washington, D. C., or by your U. S. Representative or Senator. They may be bought for 5 cents each from Superintendent of Documents, Government Printing Office, Washington, D. C. A list of several hundred bulletins will be mailed you upon request to the Department of Agriculture, Division of Publications, or your Congressman. For your convenience, and to save time, I give you the following list of the best and most needed and helpful bulletins. Just address a postcard to any of the foregoing free bulletin sources, asking for those you wish, giving number and name of each bulletin. If free copies cannot be had, then order at 5 cents each from the Superintendent of Documents.

**829** Asparagus. **254** Cucumbers. **282** Celery. **195** Annual Flowering Plants. **218** School Gardens. **1087** Beautifying the Home Grounds. **354** Onion Culture. **433** Cabbage. **1211** Home Canning of Fruits and Vegetables. **544** Pop Corn for the Market. **668** Squash Vine Borer. **739** Cutworms. **750** Roses for the Home. **766** Cabbage Worms. **879** Home Storage of Vegetables. **914** Melon Aphis. **921** Liming of Soils. **1007** Onion Trips. **1027** Strawberry Culture in West. **1028** Strawberry Culture in East. **1038** Striped Cucumber Beetle. **1044** City Home Garden. **1074** Bean Ladybug Control. **1163** Dry Farming. **181** Pruning. **289** Beans. **414** Corn Cultivation. **511** Farm Bookkeeping. **690** Field Peas. **740** House Ants. **747** Grasshoppers. **771** Homemade Fireless Cookers. **823** Sugar-Beet Syrup. **830** Marketing Eggs by Parcel Post. **887** Raspberry Culture. **920** Milk Goats. **944** Web Worms. **1126** Sudan Grass. **1182** Farm Inventories.

**Listen!** Order these bulletins as I have indicated. Don't order from me. I can't get them for others.

## Your "Aggie" College Will Help

In addition to the bulletins to be had from Washington, D. C., you can get many helpful bulletins and suggestions from your State Agricultural College. Write them and ask for list of free publications they can supply.

Furthermore, write these colleges asking for information concerning your special farm and garden problems. I receive many inquiries that should be sent to the Agricultural College. I can't give the time to answer, even if I had the data at hand, but the college is at your service and is paid for this work. You will find the professors very obliging in such matters.

Some states do not have separate Agricultural Colleges, but handle this work in connection with their universities. In either case, just address your inquiry to **Agricultural College**, to town or city I give herewith, and you will reach the department you wish. Here are the addresses of some of our western state "Aggies":

**Colorado**, Fort Collins. **Idaho**, Moscow. **Iowa**, Ames. **Kansas**, Manhattan. **Minnesota**, St. Paul. **Montana**, Bozeman. **Nebraska**, Lincoln. **North Dakota**, Agricultural College. **Oklahoma**, Stillwater. **South Dakota**, Brookings. **Texas**, College Station. **Wyoming**, Laramie.

## Ten Splendid Booklets

To give you additional garden and farm help at little or no expense to you, I have made arrangements with a Middle West seed firm to supply me with ten booklets. The price of each booklet is ten cents. I buy them at wholesale, and will supply my customers on the following terms:

**Five Cent Offer.** If you send me an order, no matter how small (though I trust you can make it a dollar or so, at least), I will send you any of these booklets at five cents each. Buy as many as you wish at this price.

**Free Offer.** Send me an order, amounting to \$3.00 or more and I will include any booklet free. You may buy as many more as you wish at the five cent price.

Now don't judge the value of the booklets by the low price. Honestly, I have bought books for a dollar or more that do not give as much helpful information as **No. 1: Hand Book for the Garden**, for instance. The other booklets are also very valuable.

If you get just one, then get the **Hand Book for the Garden**, as it covers the most subjects, and is the all-around garden booklet. Has 46 pages and cover. All have strong, durable paper covers that will last for a long time.

**No. B1, Handbook for the Garden.** This deals with growing of both vegetables and flowers, including fall bulbs. Tells how to make and handle hotbeds, coldframes; gives tables for amount of seed to sow, number of plants to fill circular beds, etc., etc. Gives the "once over" to subjects treated in detail in some of the other booklets.

**B2. Onion Culture.**

**B3. Cabbage Culture.**

**B4. Corn for the Northwest.**

**B5. Silage and Silos.**

**B6. Potato Culture.**

**B7. Insects and Diseases.**

**B8. Profitable Poultry.**

**B9. Alfalfa.**

**B10. Meadows and Pastures.**

Any booklet to any customer at five cents each. To others not customers, ten cents each. One free with order for \$3.00 or more, if requested. All prepaid.

## Start a Garden Library

I'll give you the address of publishers that make a specialty of all sorts of books on gardening, and related subjects. They can supply books from ten cents to ten dollars each, most of the books being handsomely bound and a credit to any library. Get their catalogue, and order direct from the publisher, any book that you need. Address your inquiry for garden book catalogue to: **A. T. De La Mare Co., 438 West 37th St., New York City.**

## Fall Bulb Leaflet Free

With each order for fall bulbs, I include my own leaflet of instructions, free. Or, copy will be sent anyone for 2-cent stamp.

## Write "Aggies" In Other States

Not only write your own college, but if you want information about where to secure seeds, trees, etc., in some other state, write the college in that state. For instance: A man out on the Pacific Coast wanted to get some tree seeds of Colorado trees. He wrote me for information. Wasted his time and mine. I told him to take this up with our Agricultural College. That's their job.

# *SONGS*, Safety-First Lawn Grass Seed

It is safest and cheapest to buy the very purest and best White Clover and Blue Grass seed for your lawn, because you avoid seed-ing your lawn with the noxious weeds found in cheap grass seeds, and get so much higher germination that a pound of the best will cover as much as two pounds of the cheap, chaffy, low germinating seed.

## Purest White Clover

Clean seed, of bright golden color and strong vitality, "arin' to go." Sure fine.

Lb. 85c, prepaid. Five lbs.: 2nd zone, \$4.00; 3rd zone, \$4.05; 4th zone, \$4.15; prepaid.

## Best Kentucky Blue Grass

Very heavy and clean. Lb.: 65c prepaid. Five lbs.: 2nd zone, \$3.05; 3rd zone, \$3.10; 4th zone, \$3.20, prepaid. Ten lbs.: 2nd zone, \$5.50; 3rd zone, \$5.60; 4th zone, \$5.80, prepaid. Write for prices on larger lots and beyond 4th zone.

## Safety-First Mixed Seed

About one part white clover to three parts best blue grass. Lb.: 75c, prepaid. Five lbs.: 2nd zone, \$3.45; 3rd zone, \$3.50; 4th zone, \$3.60. Ten lbs.: 2nd zone, \$6.30; 3rd zone, \$6.40; 4th zone, \$6.60. Sow about one pound to 300 square feet. If want mixed in other proportion, buy the clover and blue grass separately and mix them yourself.

Send five cents for sample ounce of White Clover or Ky. Blue Grass, and see for yourself what it's like. Seeing is believing. 10c for an ounce of each. No free samples.

## How to Grow Dandelions !

Dandelions thrive well on front lawn with street exposure. Nature supplies the seed, gratis. After the plants are well started, dig a part of the roots out, cutting them off just a little below the surface. This causes the roots to branch, sending out new shoots of luxuriant growth. Thus you make two or more dandelions grow where but one grew before. Avoid cutting too deep or extracting more than half the root, lest you ruin the plant.

Do not sow blue grass or white clover on your lawn after digging if you want the floating dandelion seed to lodge and take root wherever the ground has been disturbed. Avoid, also, raking the lawn and sowing pure grass seed from March to September. While the grass seed may not entirely run out the dandelions, it will at least cause a weak and sickly growth of them.

Sowing cheap, light-weight blue grass seed is a harmless practice, as little will grow and most of it will blow away. Most cheap white clover seed contains a large percentage of plantain seed and the plantain will choke out the whole works, dandelions, grass and all. It is almost impossible to get rid of the plantain. To keep a green lawn and discourage dandelions sow grass seed every year, several times a season is a good plan.

## How to Make and Maintain a Good Lawn

New lawns may be started or old ones renewed or renovated any time from earliest spring to October.

A mixture of good lawn seed and horse sense will go far to insure a good lawn. New lawns should be thoroughly worked, leveled and allowed to settle, then leveled again. The more care you give the lawn along this line before sowing the seed the better results you will have. Seed will wash to the low spots and make your lawn spotted. Some will complain that the seed was not good as came up only in spots. Sow about one part clover to three parts blue grass.

Sow part the seed one way and then some more crosswise, so as to avoid streaks. Rake well before and after sowing. Save some seed for sowing in spots that fail to come thick enough. Water gently but thoroughly so often that soil never dries out until seed is up. Clover comes quickly. Blue Grass comes slowly but hangs on like grim death after once it gets a foothold. Clover draws nitrogen from the air and enriches the ground for itself and the Blue Grass.

Old lawns should be re-seeded and fertilized from time to time. Use only the purest seed. Five pounds bone meal to 100 square feet is good in spring or summer. Rotted barn-yard manure is O. K. if applied in winter or early spring. See also suggestions above.

# LONG'S Business Terms—Read Before Ordering

Safe delivery guaranteed.

All goods prepaid, unless otherwise noted.

**Cash with order, or C. O. D.** Please do not ask for any other terms. Your check O. K. with us if O. K. at your bank.

**C. O. D. orders.** Bear in mind that C. O. D. orders cost you extra for collection and M. O. fees. On orders for perishable items, also heavy packages of other goods, we require one-fourth cash. Balance may be C. O. D.

**Goods priced prepaid** will be sent by parcel post or express, usually parcel post. If you specify a certain way and the other is cheaper, you pay the difference.

**We ship promptly, or notify you if** goods are to be sent later. So if you

fail to receive goods or a notice within one week, please drop us a line at once. Don't wait.

**I want you to report errors.** Just drop me a line stating the trouble. That's enough. Don't need to sass me.

**NON-WARRANTY.**—Owing to many conditions that may prevent the best seeds from growing and giving satisfaction, we, the J. D. Long Seed Company, therefore, in common with other seedsmen, give no warranty, expressed or implied, as to growth, description, quality, productivity, or any other matter of any seeds, bulbs or plants that we send out, and we will in no way be responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned, and the money will be refunded.

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<b>Cinnamon Vine</b> . . . . .	45	<b>Mallow</b> . . . . .	27
<b>Citron</b> . . . . .	12	<b>Mangels</b> . . . . .	7
<b>Clover, White</b> . . . . .	66	<b>Marigold</b> . . . . .	26, 27, 30
<b>Cobaea Scandens</b> . . . . .	28	<b>Melon, Musk</b> . . . . .	12, 13, 22
<b>Columbine</b> . . . . .	25, 28	<b>Mex. Fire Bush</b> . . . . .	30
<b>Corn, Pop</b> . . . . .	10	<b>Mignonette</b> . . . . .	30
<b>Corn, Sweet</b> . . . . .	10	<b>Morning Glory</b> . . . . .	27, 30
<b>Cosmos</b> . . . . .	28	<b>Mourning Bride</b> . . . . .	30
<b>Coxcomb</b> . . . . .	28	<b>Mustard</b> . . . . .	9
<b>Cucumber</b> . . . . .	11, 22	<b>Nasturtium</b> . . . . .	30
<b>Cypress Vine</b> . . . . .	28	<b>Nicotiana</b> . . . . .	30
<b>Dahlia, Seed</b> . . . . .	39	<b>Okra</b> . . . . .	21
<b>Delphinium</b> . . . . .	27	<b>Onion, Seed</b> . . . . .	14, 15, 22
<b>Dianthus</b> . . . . .	30	<b>Onion, Sets</b> . . . . .	16
<b>Daisy, Seed</b> . . . . .	28		
<b>Daisy (Shasta), Roots</b> . . . . .	44		
<b>Dill</b> . . . . .	21		
		<b>Velvet Trumpet</b> . . . . .	31
		<b>Verbena</b> . . . . .	31
		<b>Wild Cucumber</b> . . . . .	31
		<b>Zinnia</b> . . . . .	23

***LONG'S***

# GARDEN BOOK

## for 1926

### Vegetable Seed Collection

Beans, Burpee's Green Pod .....	\$ .10
Table Beet, Early Wonder .....	.10
Cabbage, Copenhagen Market .....	.10
Table Carrot, Early Nantes .....	.10
Cucumber, Early Fortune .....	.05
Lettuce, Iceberg (Head) .....	.05
Lettuce, Black Seed Simpson .....	.05
Musk Melon, Greeley Wonder .....	.10
Onion, Imp. Mountain Danvers .....	.10
Parsnip, Hollow Crown .....	.10
Peas, Dwarf Telephone .....	.10
Radish, Crimson Giant .....	.10
Radish, White Icicle .....	.10
Sweet Corn, Imp. Golden Bantam .....	.10
Swiss Chard (Spinach Beet) .....	.10
Turnip, Early Snowball .....	.05
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TOTAL VALUE .....	\$1.40

Special Price, \$1.00, Prepaid

### Dahlia Collection

Naiad .....	\$ .48
Mrs. Salbach .....	.54
Ruth Jacquelain .....	2.04
Ninfea (Water Lily) .....	1.50
Judge Marean .....	1.02
Grand Duchess Marie .....	.30
Sweetheart's Bouquet .....	.48
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TOTAL VALUE .....	\$6.36

Special Price, \$4.90, Prepaid

No Changes In Above Collections—Order Early

### Flower Seed Collection

Aster, Long's Special Mixture .....	\$ .10
Bachelor Button, Double, Mixed .....	.10
Calendula, Florists' Orange King .....	.10
California Poppy, "Persian Rug" .....	.10
Cosmos, Early Giant, Mixed .....	.10
Everlasting Flower, Mixed Colors .....	.10
Marigold, Tall, Giant Flowered .....	.10
Nasturtium, Dwarf Brilliant, Mixed .....	.10
Petunia, Choice Mixed, Fine .....	.10
Poppy, Peony-Flowered, Mixed .....	.10
Snapdragons, Mixed Giants .....	.10
Sweet Pea, "33-in-1" Mixture .....	.10
Verbenas, Mammoth Mixed .....	.10
Zinnia, Long's Mastodon Mixed .....	.10

TOTAL VALUE .....

\$1.40

Special Price, \$1.00, Prepaid

### Gladiolus Collection

C. Sylva .....	\$ .15	M. Kunderd ..	\$ .30
C. Glow .....	.09	Ford (small) ..	.40
Shaylor .....	.09	Norton ..	.08
Kirtland .....	.09	Peters ..	.25
Gold .....	.20	Rose Ash ..	.17
Jewel .....	.16	Souvenir ..	.11

TOTAL VALUE .....

\$2.09

Special Price, \$1.60, Prepaid

**THE J.D. LONG SEED COMPANY**

BOULDER, COLORADO